HCD-V3900/V5900

SERVICE MANUAL

E Model

Photo : HCD-V5900

- This set is the tuner, deck,Video CD and amplifier section in LBT-V3900/V5900.

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CD Section	Model Name Using Similar Mechanism	HCD-V4800
	CD Mechanism Type	CDM37L-5BD21AL
	Base Unit Name	BU-5BD21AL
	Optical Pick-up Name	KSS-213D/Q-NP
Tape deck Section	Model Name Using Similar Mechanism	HCD-V4800
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

Amplifier section

(HCD-V3900)
The following measured at AC 120/240 V, 50 Hz
DIN power output (Rated)
100 + 100 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
120 + 120 watts
(6 ohms at 1 kHz, 10 % THD)
The following measured at AC 220 V, 50 Hz
DIN power output (Rated)
90 + 90 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
105 + 105 watts
(6 ohms at 1 kHz, 10 % THD)
Peak music power output (Reference)
1,500 watts

(HCD-V5900)
The following measured at AC 120/240 V, 50 Hz
DIN power output (Rated)
120 + 120 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
140 + 140 watts
(6 ohms at 1 kHz, 10 % THD)
The following measured at AC 220 V, 50 Hz
DIN power output (Rated)
110 + 110 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (Reference)
130 + 130 watts
(6 ohms at 1 kHz, 10 % THD)
Peak music power output (Reference)
2,000 watts

Inputs
PHONO IN (phono jacks):
sensitivity 3 mV,
impedance 47 kilohms
VIDEO (AUDIO) IN (phono jacks):
sensitivity 250 mV,
impedance 47 kilohms
MIX MIC (phono jack):
sensitivity 1 mV,
impedance 10 kilohms

Outputs
VIDEO (AUDIO) OUT (phono jacks):
voltage 250 mV, impedance 1 kilohm
VIDEO (phono jack):
max. output level 1 Vp-p, unbalanced,
Sync negative, load impedance 75 ohms
S-VIDEO (4-pin/mini-DIN jack):
Y: 1 Vp-p, unbalanced, Sync negative
C: 0.286 Vp-p, load impedance 75 ohms
PHONES (stereo phone jack):
accepts headphones of 8 ohms or more
SPEAKER:
accepts impedance of 6 to 16 ohms

Video CD/CD player section

System Compact disc digital audio and video system
Laser Semiconductor laser (= 780 nm)
Emission
duration: continuous
Laser output
Max. 44.6 µW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength
780 – 790 nm
Frequency response
2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio
More than 90 dB
Dynamic range
More than 90 dB
Video Color system format:
NTSC, PAL

— Continued on next page —

COMPACT HI-FI STEREO SYSTEM

MICROFILM

SONY®

Tape player section

Recording system
4-track 2-channel stereo
Frequency response (DOLBY NR OFF)
60 – 13,000 Hz (±3 dB), using a Sony TYPE I cassette
60 – 14,000 Hz (±3 dB), using a Sony TYPE II cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
87.5 – 108.0 MHz (50 kHz step)
Antenna
FM wire antenna
Antenna terminals
75 ohm unbalanced
Intermediate frequency
10.7 MHz

AM tuner section

Tuning range
531 – 1,602 MHz (with the tuning interval set at 9 kHz)
530 – 1,710 MHz (with the tuning interval set at 10 kHz)
Antenna
AM loop antenna, External antenna terminals
Intermediate frequency
450 kHz

General

Power requirements	110 – 120 V or 220 – 240 V AC, 50/60 Hz adjustable with voltage selector
Power consumption	(HCD-V3900) 245 watts (HCD-V5900) 255 watts
Dimensions (w/h/d)	Approx. 355 × 425 × 435 mm incl. projecting parts and controls
Mass	(HCD-V3900) Approx. 16.3 kg (HCD-V5900) Approx. 16.8 kg
Supplied accessories	AM loop antenna (1) Remote (1) RM-SV808S (LBT-V3900) RM-SV4800S (LBT-V5900) Size AA batteries (2) FM wire antenna (1) Speaker cords (2) Video cable (1)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

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SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

Notes on chip component replacement

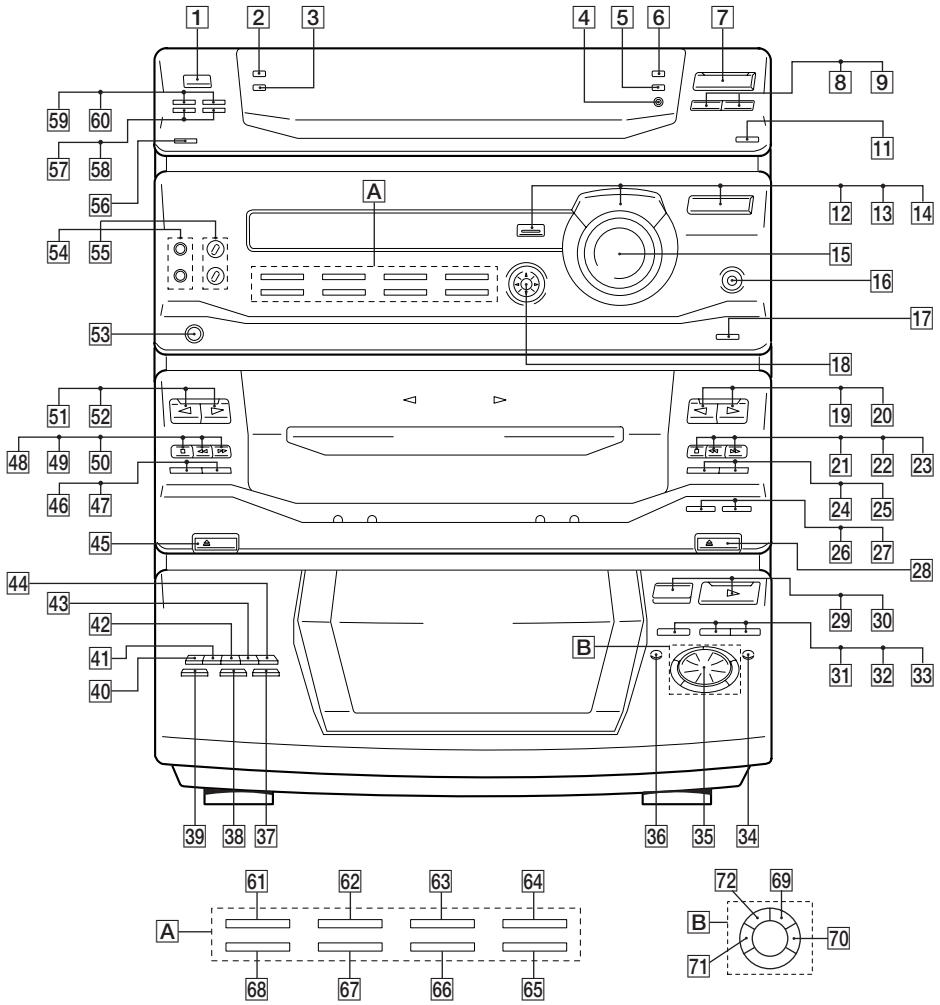
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

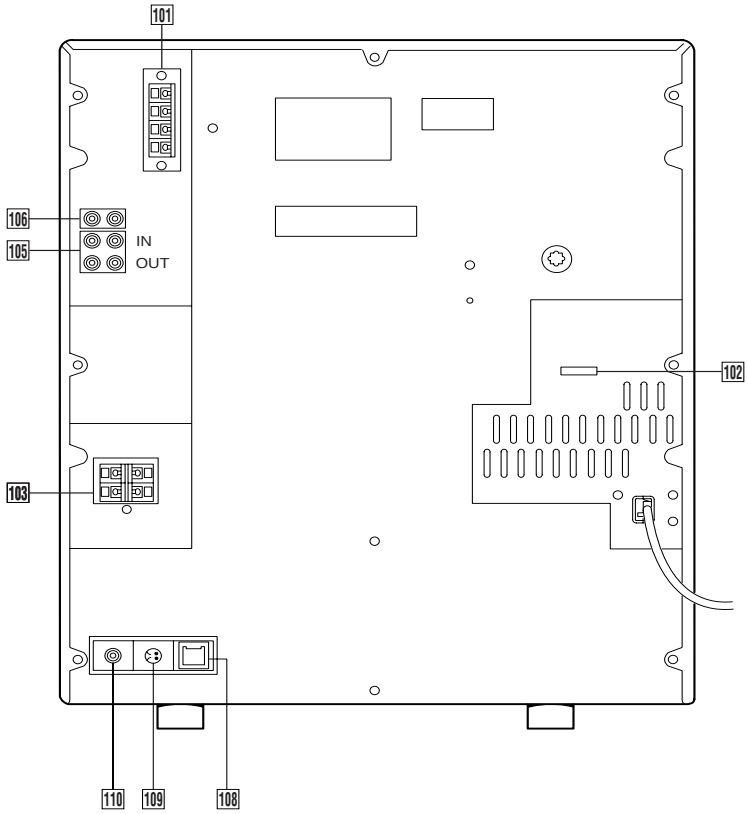
SECTION 1
GENERAL

– FRONT PANEL –



1 I/⏻ button
2 DISPLAY/DEMO button
3 SPECTRUM ANALYZER button
4 ENTER/NEXT button
5 TUNER MEMORY button
6 TUNING MODE button
7 TUNER/BAND button
8 TUNING – button
9 TUNING + button
11 STEREO/MONO button
12 EFFECT button
13 GROOVE button
14 FUNCTION button
15 VOLUME knob
16 SUPER WOOFER button
17 SUPER W MODE
18 GEQ button
19 DECK B ◁ (play) button
20 DECK B ▷ (play) button
21 DECK B ■ (stop) button
22 DECK B ◀◀ (backward) button
23 DECK B ▶▶ (forward) button
24 DECK B ❚❚ (pause) button
25 DECK B ● REC button
26 H SPEED DUB button
27 CD SYNC button
28 DECK B ⏏ EJECT button
29 CD ⏏ OPEN button
30 CD ▷ (play) button
31 DISK SKIP button
32 CD ❚❚ (pause) button
33 CD ■ (stop) button
34 CD ▶▶ (forward) button
35 ⏮◁◁ AMS ▷▷⏭ knob
36 CD ◀◀ (backward) button
37 CD FLASH button
38 CD LOOP button
39 CD NON-STOP button
40 DISC 1 button
41 DISC 2 button
42 DISC 3 button
43 DISC 4 button
44 DISC 5 button
45 DECK A ⏏ EJECT button
46 DIRECTION button
47 DOLBY NR button
48 DECK A ■ (stop) button
49 DECK A ◀◀ (backward) button
50 DECK A ▶▶ (forward) button
51 DECK A ◁ (play) button
52 DECK A ▷ (play) button
53 PHONES jack
54 MIC1, MIC2 jack
55 MIC LEVEL, ECHO LEVEL knobs
56 SLEEP button
57 DAILY 1 button
58 DAILY 2 button
59 🕘 / CLOCK SET button
60 REC button
61 WAVE button
62 SURROUND button
63 P FILE MEMORY button
64 GEQ CONTROL button
65 ENTER button
66 KEY CONTROL (♯) button
67 KEY CONTROL (♭) button
68 KARAOKE PON/MPX button
69 PLAY MODE button
70 REPEAT button
71 EDIT button
72 1/ALL DISCS button

– BACK PANEL –

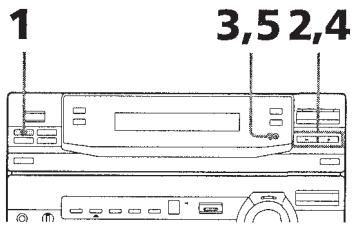


101 ANTENNA terminal
102 VOLTAGE SELECTOR switch (E, AR model)
103 SPEAKER terminal
105 VIDEO (AUDIO) jack
106 PHONO jack
108 SYSTEM SELECT
109 S VIDEO OUT
110 VIDEO OUT

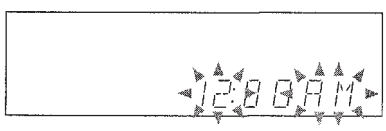
Step 2: Setting the time

This section is extracted from instruction manual.

You must set the time before using the timer functions.

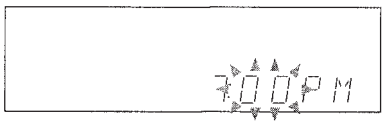


1 Press ⏲/CLOCK SET.
The hour indication flashes.



2 Press TUNING +/– to set the hour.
The clock uses the 12-hour system.

3 Press ENTER/NEXT.
The minutes indication flashes.



4 Press TUNING +/– to set the minutes.

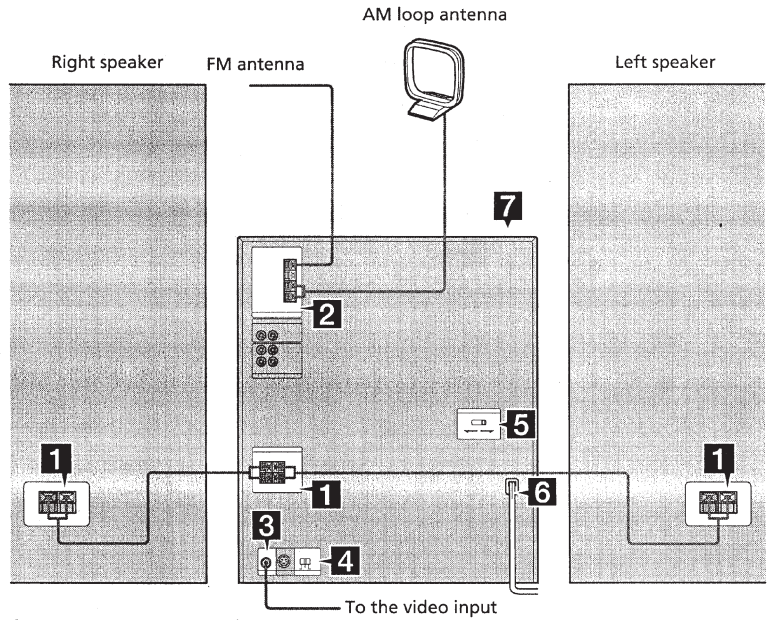
5 Press ENTER/NEXT.
The clock starts.

Tips

- If you make a mistake, start over from step 1.
- To change the time while the power is on, do the following:
  1 Press ⏲/CLOCK SET.
  2 Press TUNING +/– to select "SET CLOCK."
  3 Press ENTER/NEXT.
  4 Perform steps 2 through 5 above.

Step 1: Hooking up the system

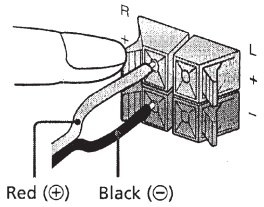
Follow steps 1 through 7 to hook up your system using the supplied cords and accessories.



The above illustration is of the LBT-V5900.

1 Connect the speakers.

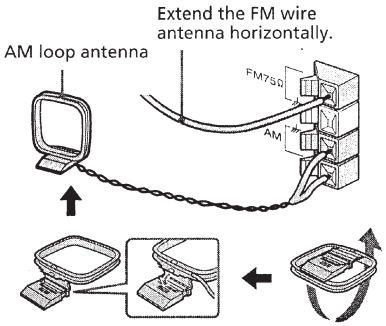
1 Connect the speaker cords to SPEAKER jacks of the same color.
Keep the speaker cords away from the antennas to prevent noise.



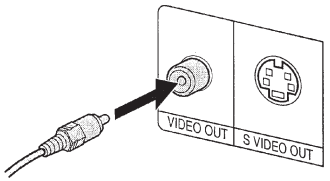
2 Insert only the stripped portion of the cord. Inserting the vinyl portion will interfere with the speaker connection and no sound will come from the speaker.

2 Connect the FM/AM antennas.

Set up the AM loop antenna, then connect it.



3 Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video connecting cable.



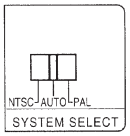
When using a TV

Turn on the TV and select the video input so you can view the pictures from this system.

Tip

For even higher quality video images, you can use an optional S VIDEO cord to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack.

4 Set SYSTEM SELECT (color system) to the appropriate position (PAL or NTSC), according to your TV.



If your TV automatically changes the color system according to the input signal:

The factory setting (AUTO) automatically changes the color system of the video output according to the color system of the current VIDEO CD. If you turn off the system, the color system will be set to NTSC automatically when you turn on the system again.

If the color system of your TV is NTSC:

Set SYSTEM SELECT to NTSC.

Picture recorded in the PAL color system will be stretched vertically and will be displayed with the upper and lower parts of the picture cut off.

If the color system of your TV is PAL:

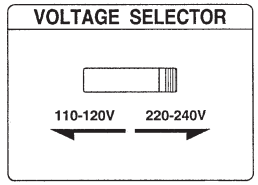
Set SYSTEM SELECT to PAL.

Picture recorded in the NTSC color system will be stretched horizontally and will be displayed with the upper and lower parts of the screen masked in black.

Note

Be sure to turn off the system before changing the SYSTEM SELECT setting.

5 Set VOLTAGE SELECTOR to the position of your local power line voltage (except for Chinese model).

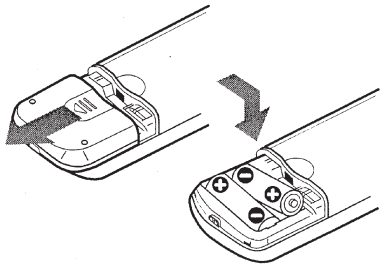


6 Connect the power cord to a wall outlet.

The demonstration appears in the display.
If the plug on this unit does not fit your wall outlet, detach the supplied adapter from the plug (except for Chinese model).

7 Deactivate the demonstration mode by pressing DISPLAY/DEMO while the system is off.

Inserting two size AA (R6) batteries into the remote

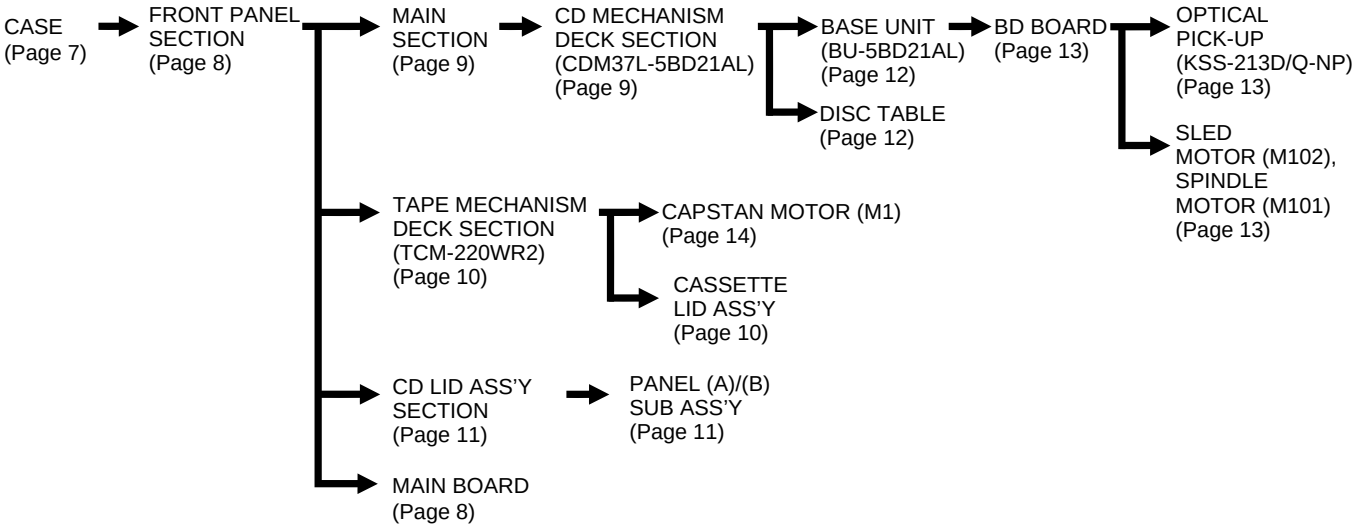


continued

This section is extracted from instruction manual.

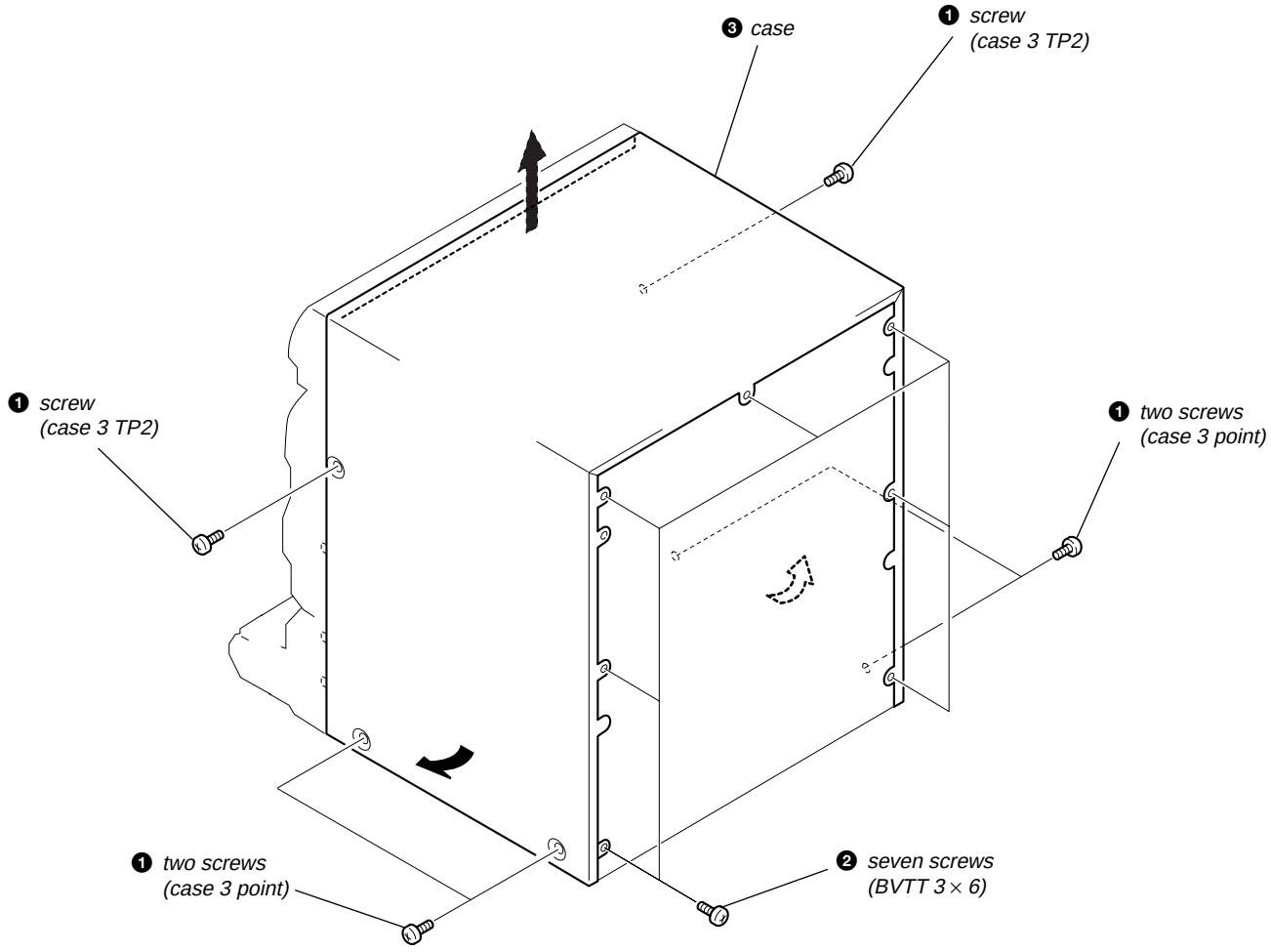
SECTION 2
DISASSEMBLY

• This set can be disassembled in the order shown below.

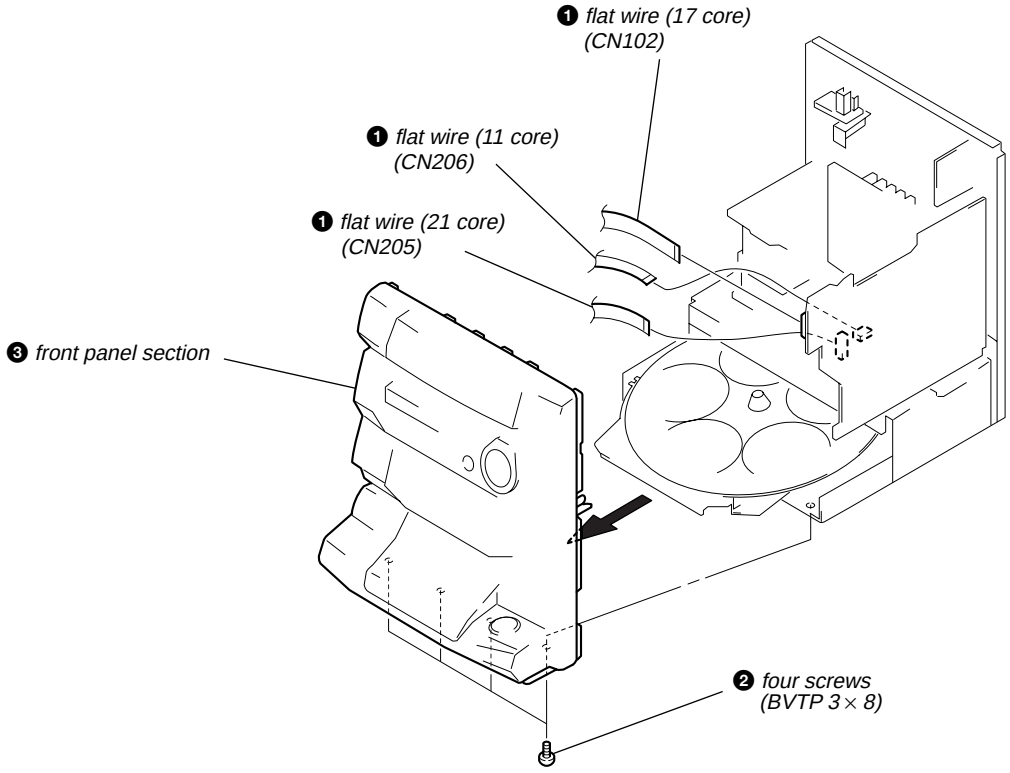


Note: Follow the disassembly procedure in the numerical order given.

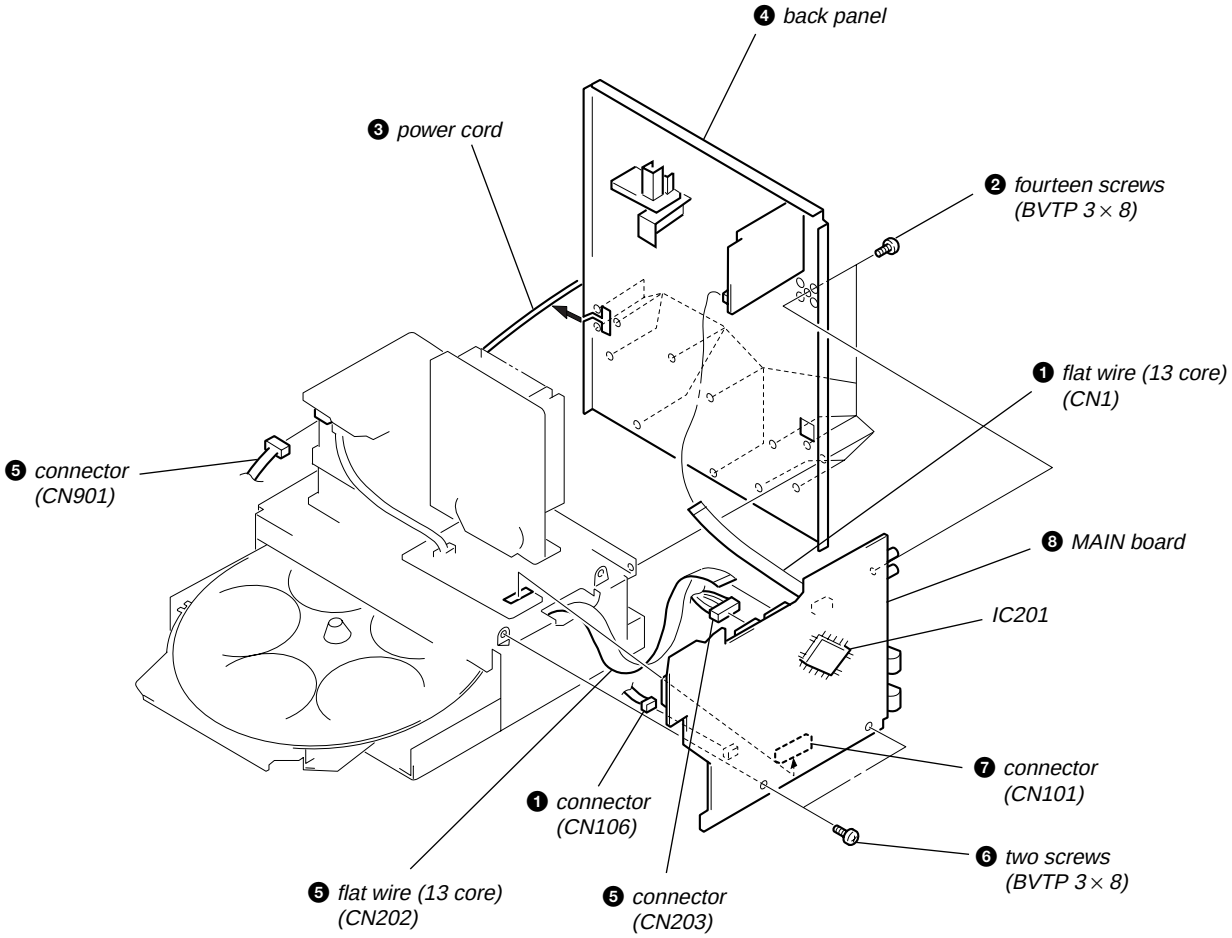
2-1. CASE



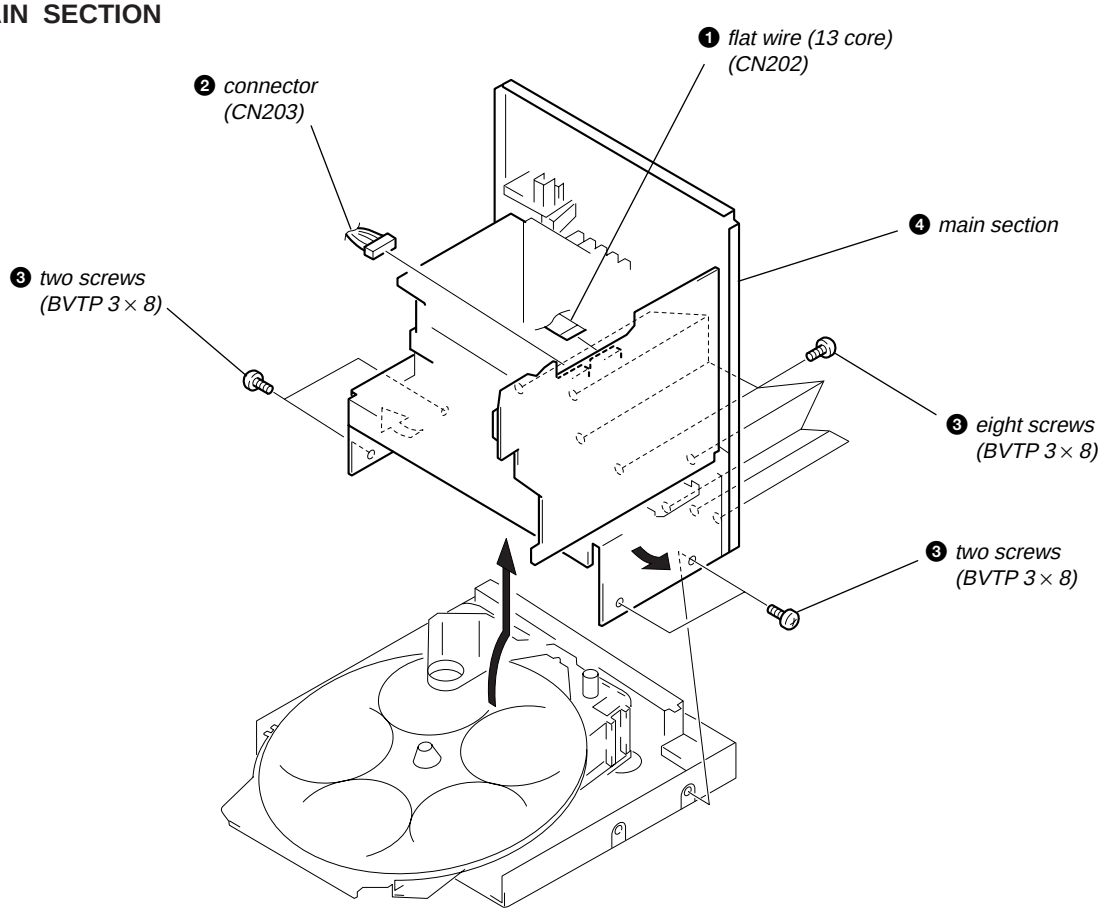
2-2. FRONT PANEL SECTION



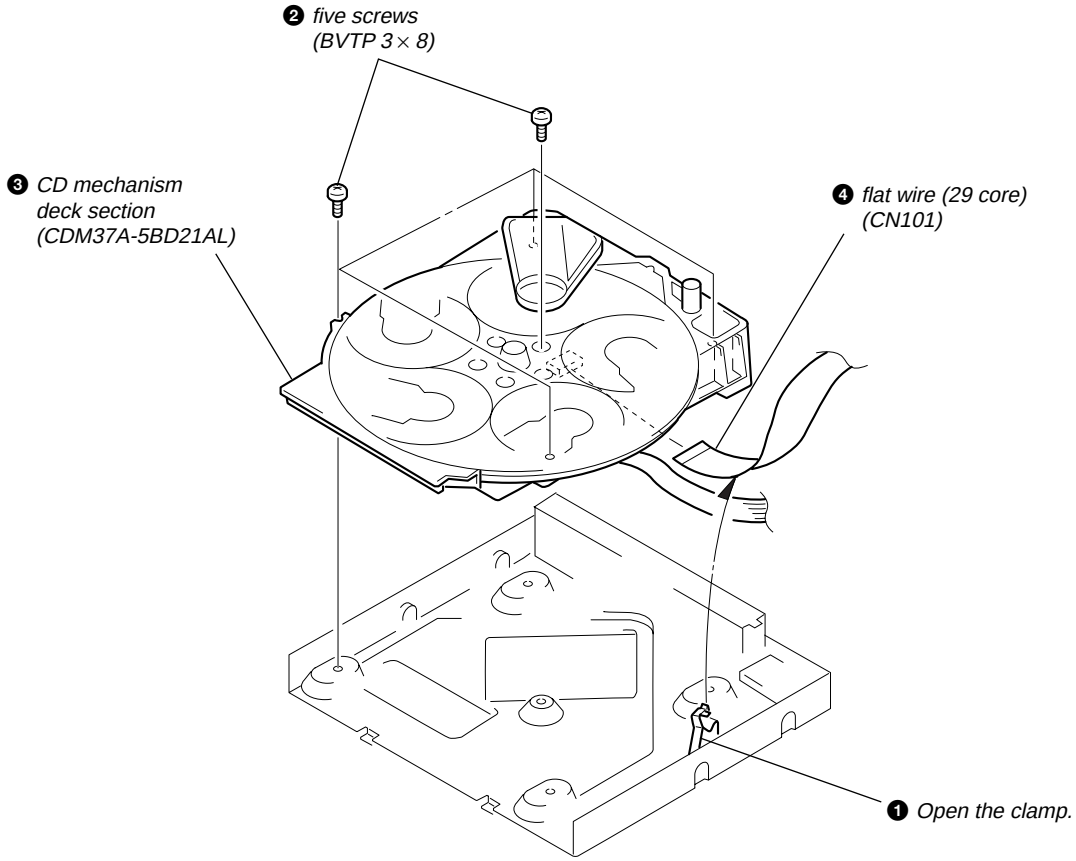
2-3. MAIN BOARD



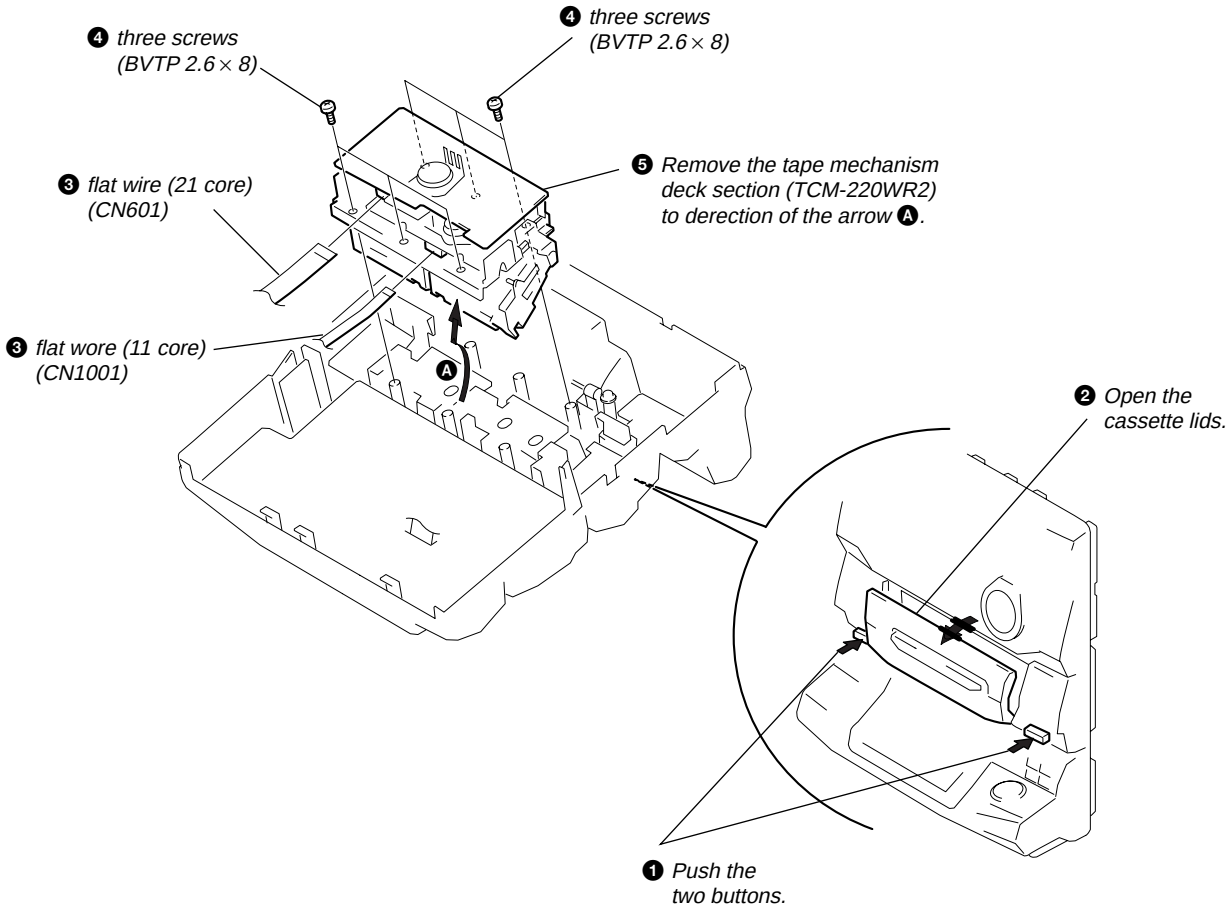
2-4. MAIN SECTION



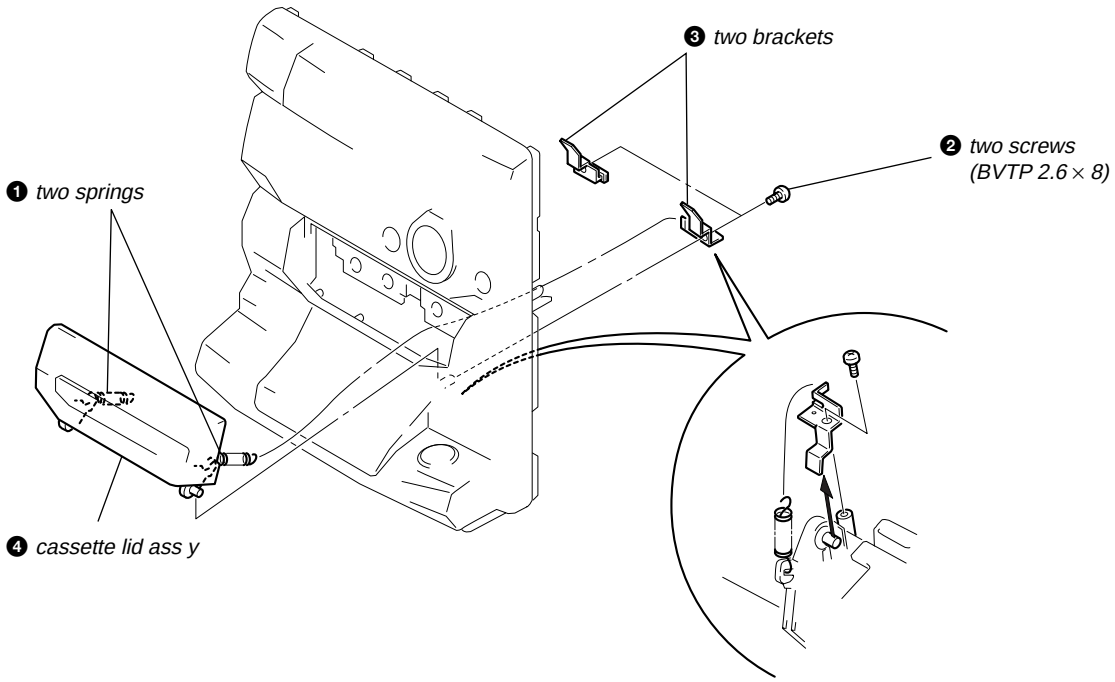
2-5. CD MECHANISM DECK SECTION (CDM37L-5BD21AL)



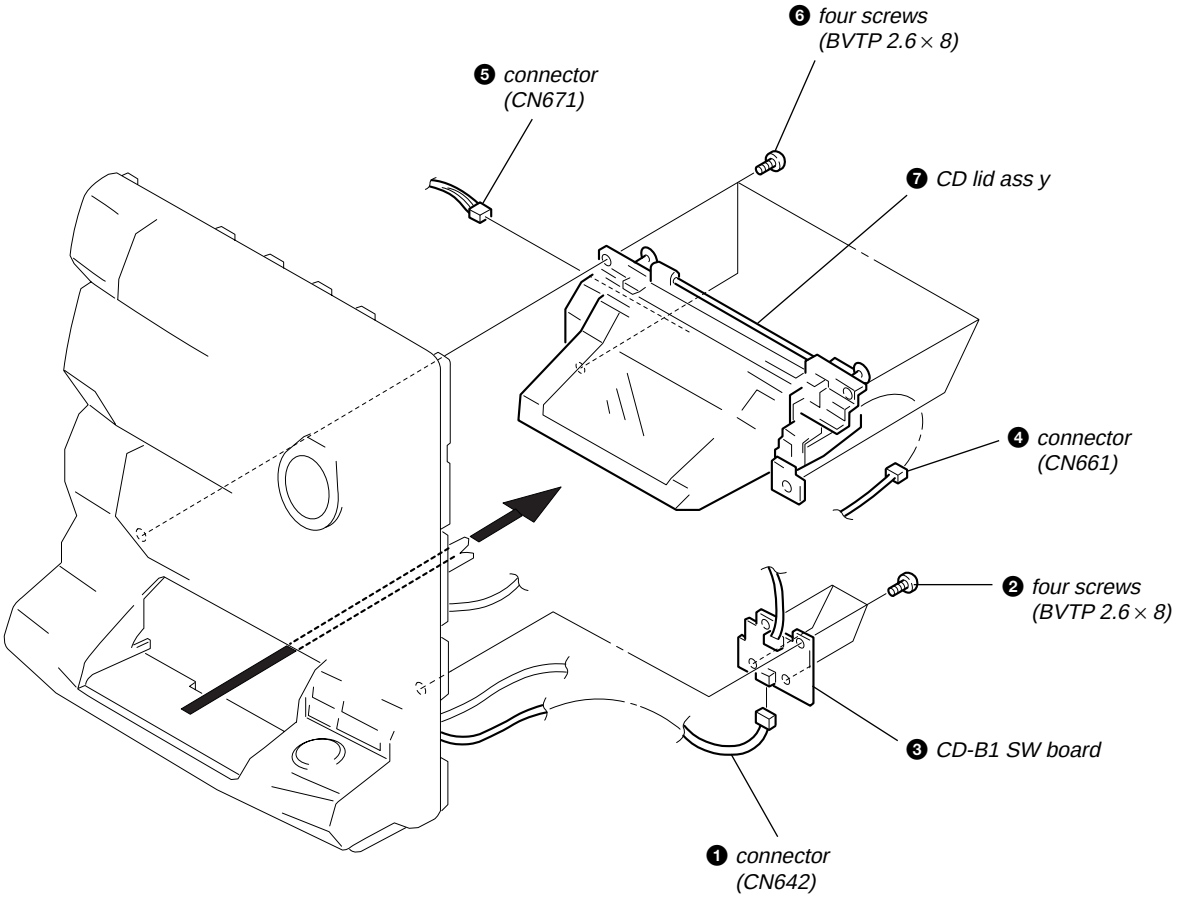
2-6. TAPE MECHANSM DECK SECTION (TCM-220WR2)


❹ three screws (BVTP 2.6× 8)
❹ three screws (BVTP 2.6× 8)
❺ Remove the tape mechanism deck section (TCM-220WR2) to derection of the arrow Ⓐ.
❸ flat wire (21 core) (CN601)
❸ flat wore (11 core) (CN1001)
Ⓐ
❷ Open the cassette lids.
❶ Push the two buttons.

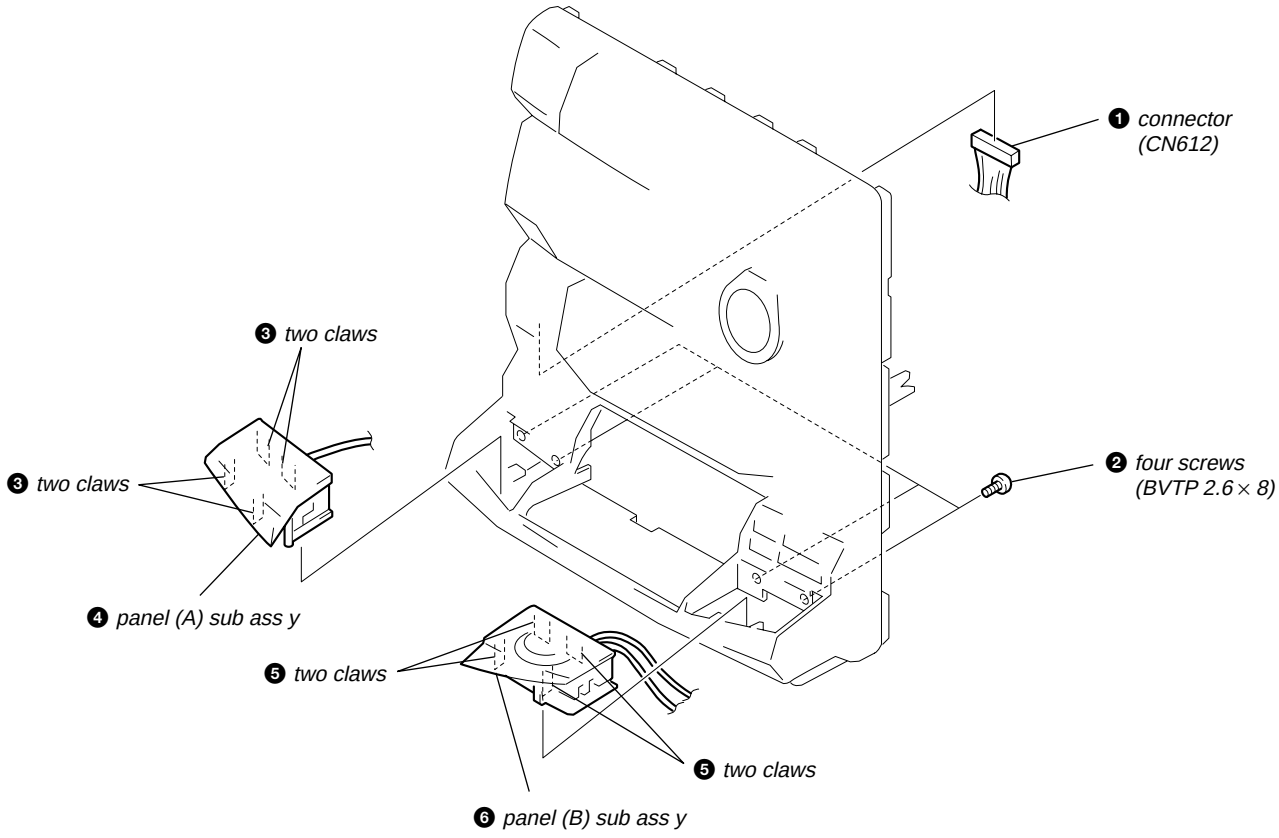
2-7. CASSETTE LID ASS'Y



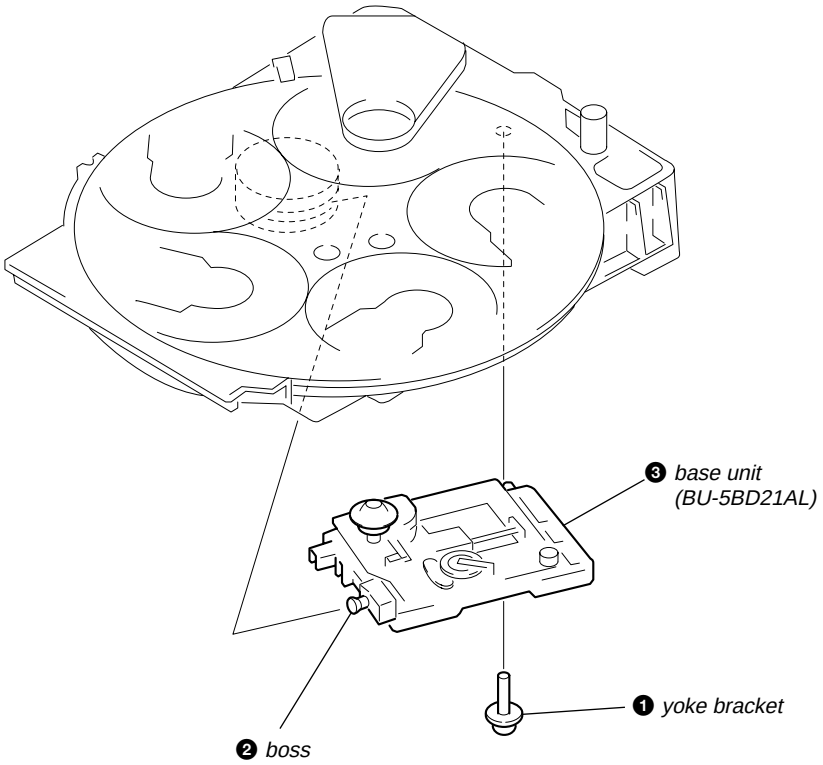
2-8. CD LID ASS'Y SECTION



2-9. PANEL (A) / (B) SUB ASS'Y

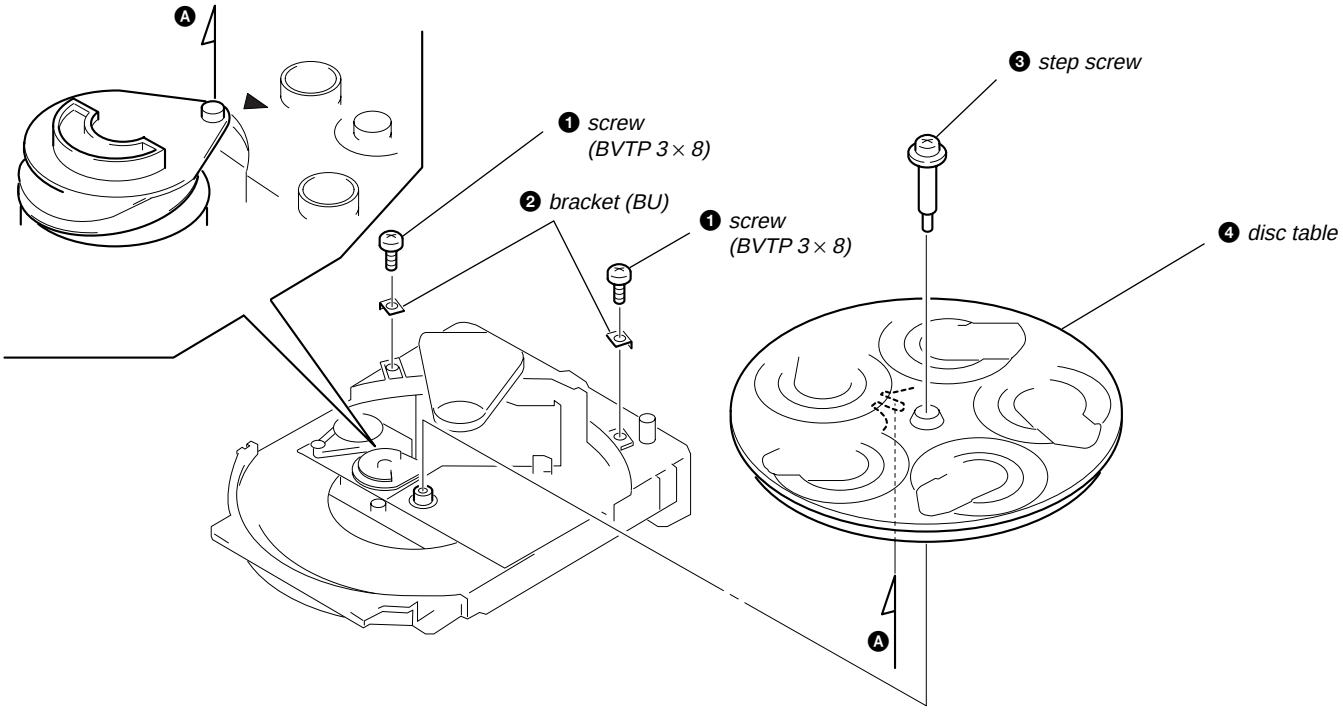


2-10. BASE UNIT (BU-5BD21AL)

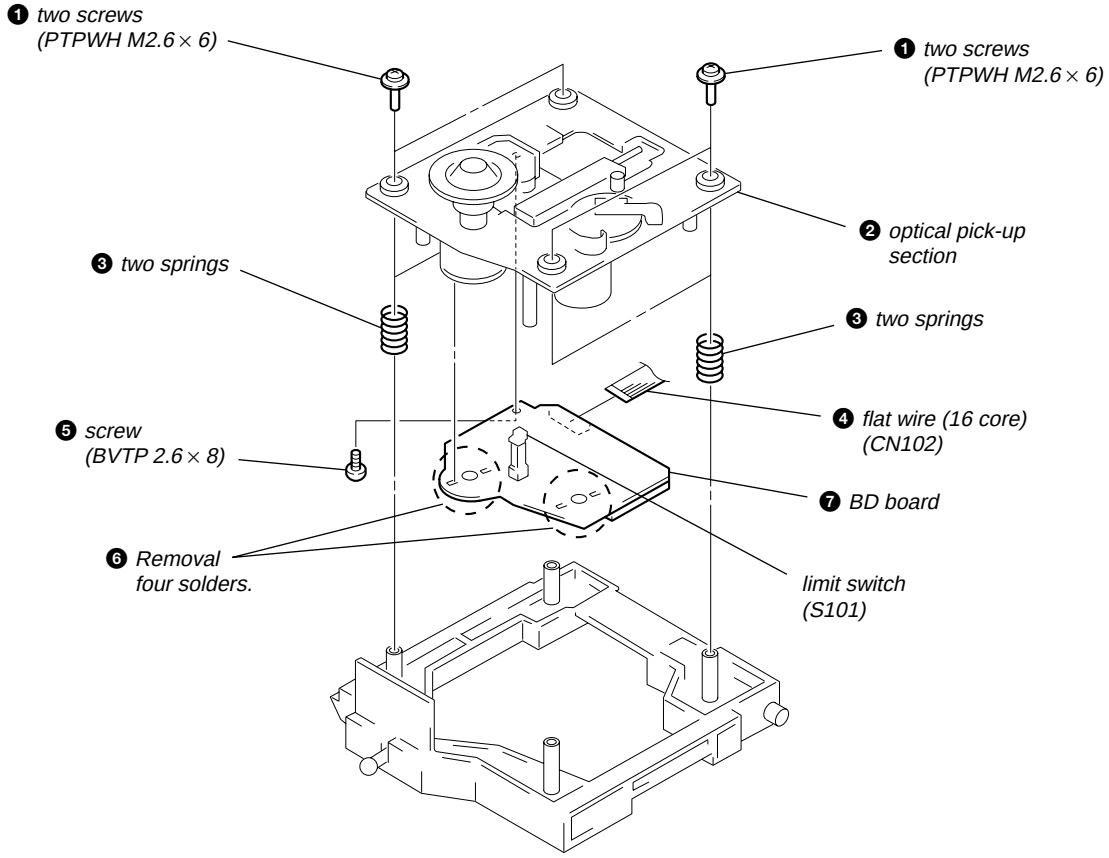


2-11. DISC TABLE

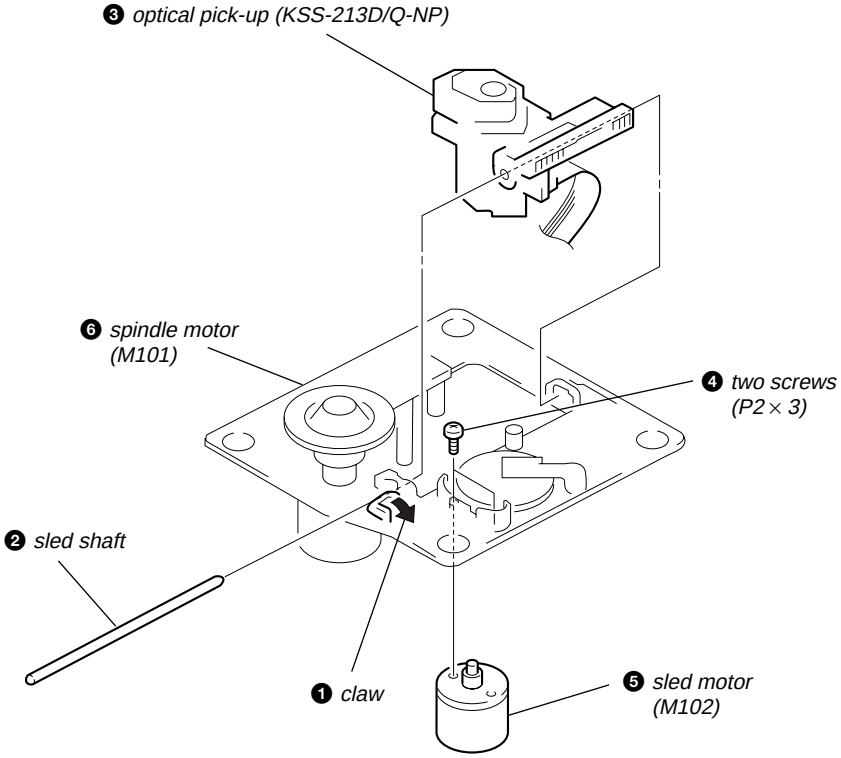
Note:
When the disc table is installed, adjust the positions of roller cam amd mark ► as shown in the figure, then set to the groove of disc table.



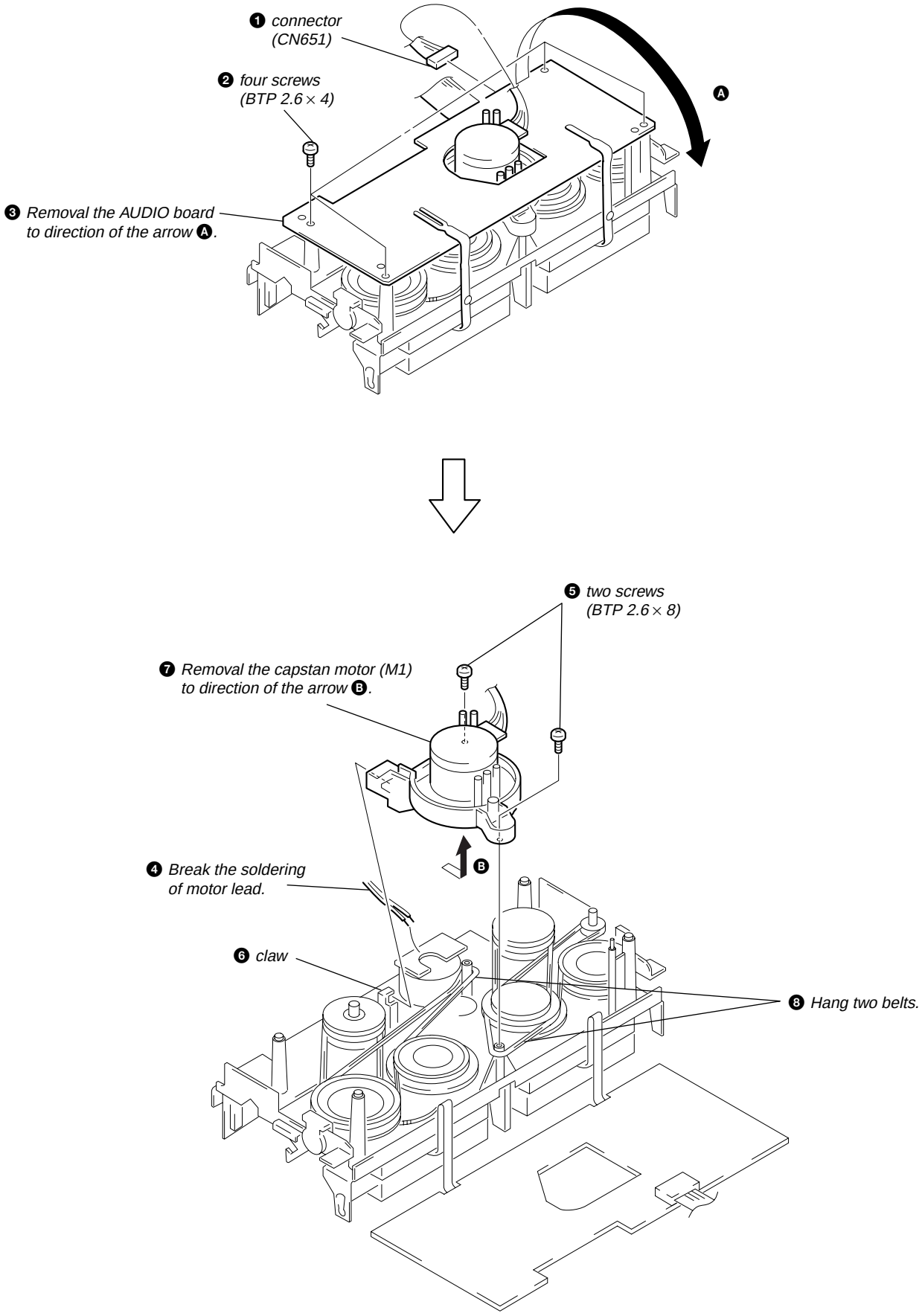
2-12. BD BOARD



2-13. OPTICAL PICK-UP (KSS-213D/Q-NP), SLED MOTOR (M102), SPINDLE MOTOR (M101)



2-14. CAPSTAN MOTOR (M1)


❶ connector (CN651)
❷ four screws (BTP 2.6 × 4)
❸ Removal the AUDIO board to direction of the arrow Ⓐ.
Ⓐ
❺ two screws (BTP 2.6 × 8)
❼ Removal the capstan motor (M1) to direction of the arrow Ⓑ.
Ⓑ
❹ Break the soldering of motor lead.
❻ claw
❽ Hang two belts.

SECTION 3
TEST MODE

MC COLD RESET

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 1] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

CD DELIVERY MODE

- This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Press [PLAY MODE] button and [I/⏻] button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC HOT RESET

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 2] simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

SLED SERVO MODE

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function "CD".
2. Press three buttons [GROOVE] , [ENTER/NEXT] , and [CD FLASH] simultaneously.
3. The Sled Servo mode is selected, if "CD" is blinking on the fluorescent indicator tube.
4. With the CD in stop status, press [▶▶] button in CD section to move the pick-up to outside track, or [◀◀] button to inside track.
5. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press three buttons in the same manner as step 2.

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

CHANGE-OVER OF AM TUNER STEP BETWEEN 9 kHz AND 10 kHz

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER/NEXT] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.
   Be sure not to change with carelessness.

LED AND FLUORESCENT INDICATOR TUBE ALL LIT, KEY CHECK MODE

Procedure:

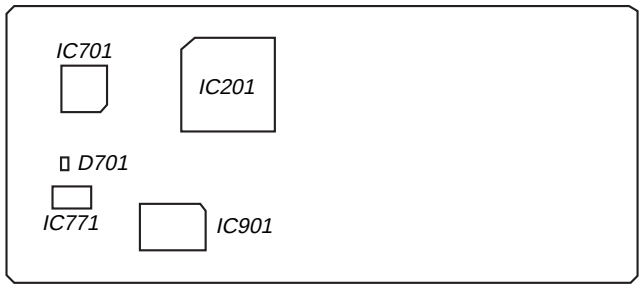
1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 3] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 2] button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 J0 V0". Each time a button is pressed, "K"value increases. However, once a button is pressed, it is no longer taken into account.
   "J" value increases like 1, 2, 3 ... if rotating JOG dial knob in "clock wise" direction, or it decreases like 0, 9, 8 ... if rotating in "counter clock wise" direction.
   "V" value increases like 1, 2, 3 ... if rotating [VOLUME] knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "–" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

SELF-DIAGNOSIS

This model has the self-diagnosis function for the video and audio decoder sections.
Immediately after the power on, the self-diagnosis function searches each operation of IC's around the mechanism controller (IC701). The LED (D701) on the VIDEO board indicates their results.

LED (D701) INDICATION	SYMPTOM
Light	No error
1 time blinking (Repeatedly)	External RAM (S-RAM) error (IC751)
2 times blinking (Repeatedly)	Video decoder section error (IC201)
3 times blinking (Repeatedly)	Video RAM (D-RAM) error (IC251)
4 times blinking (Repeatedly)	Audio decoder section error (IC201)

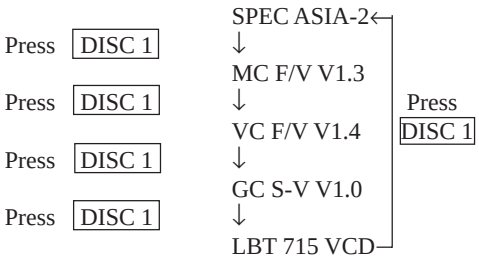
[VIDEO BOARD] (SIDE-A)



VERSION CHECK MODE

Procedure:

1. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 3] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
   Press [DISC 1] button, and the version check mode is activated.
3. In the version check mode, the fluorescent indicator tube displays version information as follows.



4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

AGING MODE

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops.
- If no error occurs:
  The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating Method of Aging Mode

1. Set discs in DISC 1 and DISC 3 trays.
2. Select the function “CD”.
3. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 5] simultaneously.
4. The aging mode is activated, if a changer mark on the fluorescent indicator tube is blinking.
5. In the aging mode, the aging is executed in a sequence given in “1-2. Operation during Aging Mode”.
   The aging continues unless an alarm occurred.
6. To exit from the aging mode, press [I/⏻] button to turn the set OFF.

- If a button other than buttons In CD section is pressed during aging, the aging in the CD section is finished.
- To execute aging to the tape deck section successively, press [▷] button in the deck A.
  “AGING” is displayed on the fluorescent indicator tube. (For the aging in tape deck, see “2. Aging Mode in Tape Deck Section”.

1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
2. TOC of disc is read.
3. The pick-up accesses to the last track.
4. Steps 1 through 3 are repeated.

1-3. Disc Selection Sequence

- During the aging mode, discs are selected in the following sequence:

  Disc 1 → Disc 3
  ↑ ↓
  Disc 3 ← Disc 1

2. Aging Mode in Tape Deck Section

2-1. Operating Method of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
   (If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function “TAPE”.
3. Rewind tapes in advance by pressing [◀◀] button respectively on decks A and B.
4. Press three buttons [GROOVE] , [ENTER/NEXT] , and [DISC 5] simultaneously.
5. Press [▷] button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if “AGING A” is displayed on the fluorescent indicator tube.
7. In the aging mode, the aging is executed in a sequence given in “2-2. Operation during Aging Mode”.
   The aging continues unless an alarm occurred.
8. To exit from the aging mode, press [I/⏻] button to turn the set OFF.

2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [▷] LED does not light up.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [◁] LED does not light up.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

- During the aging mode, decks are selected in the following sequence:

  Deck A (FWD) → Deck A (REV)
  ↑ ↓
  Deck B (REV) ← Deck B (FWD)

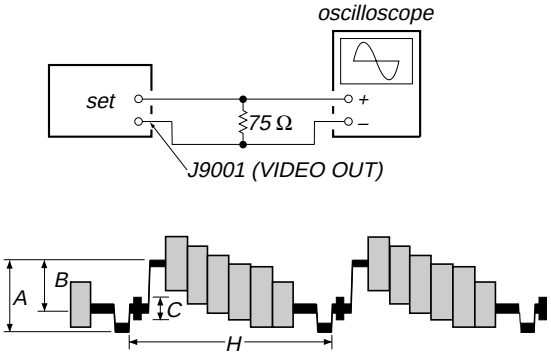
VIDEO CD COLOR BAR MODE

On this mode, the data of the color bar signal as a picture signal and the 1 kHz sine wave signal as a sound signal are output by the mechanism controller (IC701) for the video CD signal check. When measurement of the voltage and waveform on the VIDEO board, perform it in this mode.

For reference, the color bar signal can be observed at J9001 (VIDEO OUT) and the sound signal can be observed at J101 (VIDEO (AUDIO) OUT) using an oscilloscope.

Procedure:

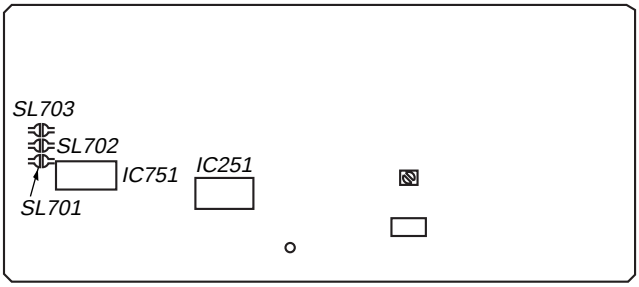
1. Turned power switch on.
2. Press the [FUNCTION] button to select the CD.
3. Connect the SL701 on the VIDEO board with solder.
4. After measuring, remove the soldering installed.



A = 0.9 to 1.1 Vp-p
B = 0.678 to 0.75 Vp-p
C = 0.214 to 0.328 Vp-p

Fig. 1 Video CD Color Bar Signal Output from J9001 (VIDEO OUT)

[VIDEO BOARD] (SIDE-B)



E-F BALANCE MODE

Refer to the SECTION 6 ELECTRICAL ADJUSTMENTS page 21.

Procedure:

1. Turned power switch on.
2. Press the [FUNCTION] button to select the CD.
3. Connect the SL701 and SL703 on the VIDEO board with solder.
4. Press the [▷] button in playback.
5. Press the [REPEAT] button, the tracking servo and sledding servo are turned on or off.
6. When the servo is off, the counter on front panel will not be changed.
7. After measuring, remove the soldering installed.

SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head, erase head, capstan, pinch roller, rubber belts, idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61g•cm (0.50 – 0.84 oz•inch)
Forward Back Tension	CQ-102C	2 to 6g•cm (0.026 – 0.082 oz•inch)
Reverse	CQ-102RC	36 to 61g•cm (0.50 – 0.84 oz•inch)
Reverse Back Tension	CQ-102RC	2 to 6g•cm (0.026 – 0.082 oz•inch)
FF, REW	CQ-201B	61 to 143g•cm (0.85 – 1.98 oz•inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 100 g (3.53 oz)
Reverse	CQ-403R	more than 100 g (3.53 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-ch.
7. Switches and controls should be set as follows unless otherwise specified.
8. Set to test mode. (Press key switch same time GROOVE, ENTER/NEXT and DISC 4 buttons.)
   To exit from the test mode, press the I/⏻ button.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, –10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

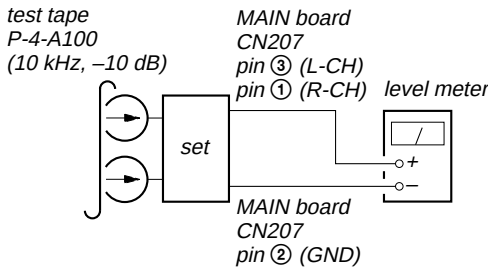
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

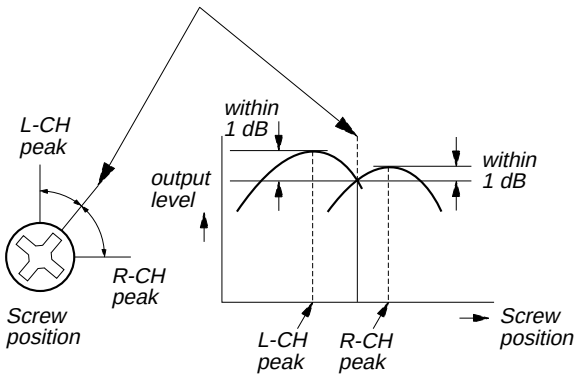
Note: Perform this adjustments for both decks.

Procedure:

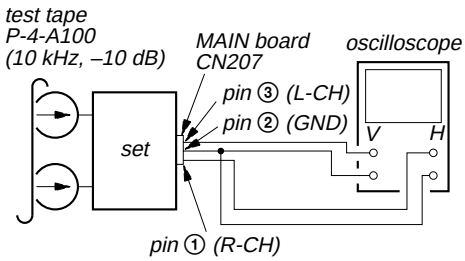
1. Mode: Playback (FWD)

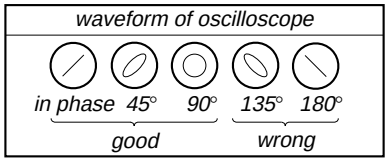


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



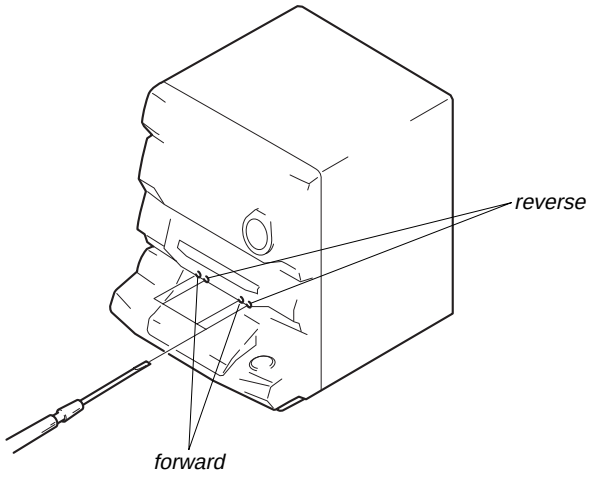
3. Mode: Playback (FWD)





4. Repeat steps 1 to 3 in playback (REV) mode.
5. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location : Playback Head (Deck A)
Record/Playback Head (Deck B)



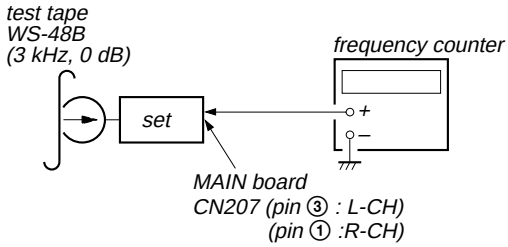
Tape Speed Adjustment **DECK A**

Note: Start the Tape Speed adjustment as below after setting to the test mode.
In the test mode, the tape speed is high during press the H SPEED DUB button.

Procedure:

1. Turn the power switch on.
2. Press the GROOVE button, ENTER/NEXT button and DISC 4 button simultaneously.
   To exit from the test mode, press the I/⏻ button.

Mode: Playback (FWD)



1. Insert the WS-48B into the deck A and the blank tape into the deck B.
2. Press the ● REC button and ▷ button on the deck B. Then the deck B is at recording mode.
3. Set the deck A to playback mode.
4. Press the H SPEED DUB button in playback mode.
   Then at high speed mode.
5. Adjust RV652 on the AUDIO board so that frequency counter reads 6,000 ± 180 Hz.
6. Press the H SPEED DUB button.
   Then at normal speed mode.
7. Adjust RV651 on the AUDIO board so that frequency counter reads 3,000 ± 90 Hz.
8. Frequency difference between deck A and deck B the beginning of the tape should be within ± 1.5 %.

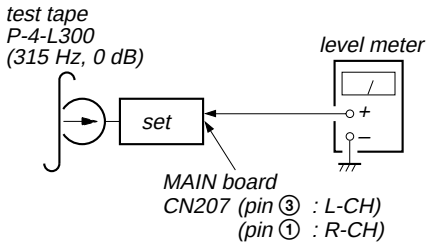
Adjustment Location: AUDIO board (See page 20)

Sample Value of Wow and Flutter: 0.3% or less W.RMS
(WS-48B)

Playback level Adjustment **DECK A** **DECK B**

Procedure:

Mode: Playback (FWD)



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

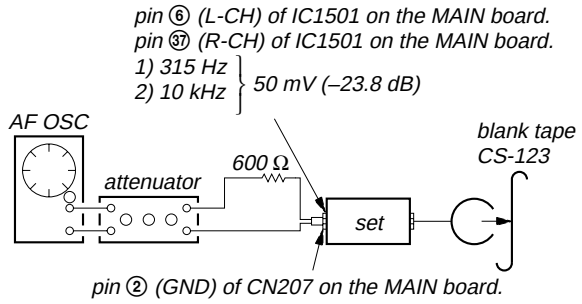
CN207 PB level: 301.5 to 338.3 mV (– 8.2 to – 7.2 dB) level difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board (See page 20)

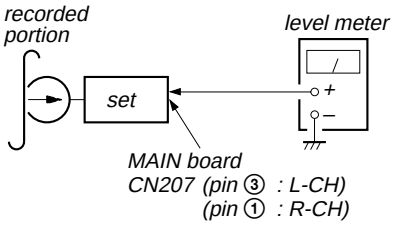
Record bias Current Adjustment **DECK B**

Procedure:

1. Mode: Record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 1 and 2.

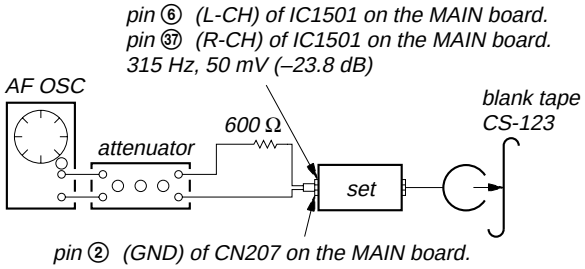
Adjustable limits: Playback output of 315 Hz to playback output of 10 kHz: ±0.5 dB

Adjustment Location: AUDIO board

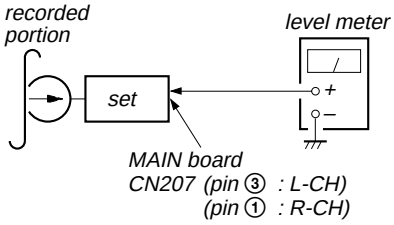
Record Level Adjustment **DECK B**

Procedure:

1. Mode: Record


pin ⑥ (L-CH) of IC1501 on the MAIN board.
pin ㊲ (R-CH) of IC1501 on the MAIN board.
315 Hz, 50 mV (–23.8 dB)
AF OSC
attenuator
600 Ω
set
blank tape
CS-123
pin ② (GND) of CN207 on the MAIN board.

2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV1501 (L-CH) and RV1551 (R-CH) on the MAIN board to repeat steps 1 and 2.

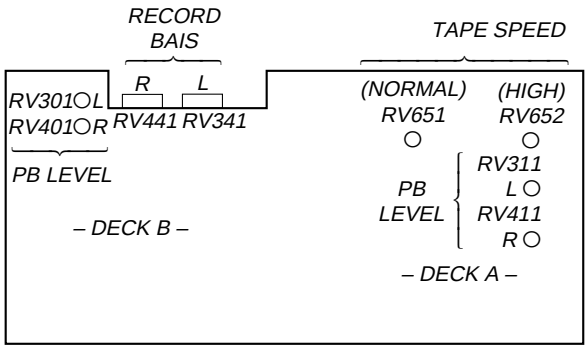
Adjustable limits:

CN207 PB level: 47.3 to 53.1 mV (–24.3 to –23.3 dB)

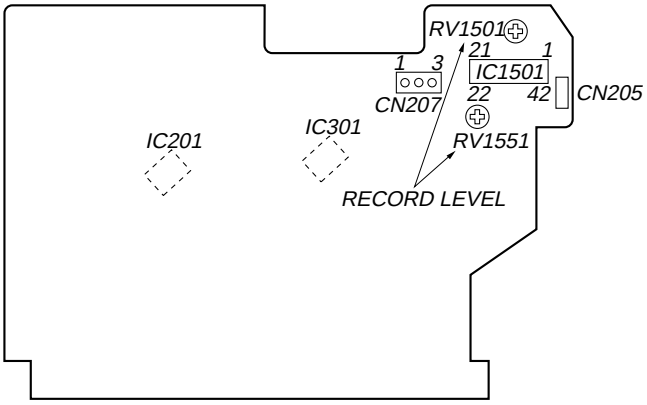
Adjustment Location: MAIN board

Adjustment and Connection Location:

[AUDIO BOARD] (Conductor Side)



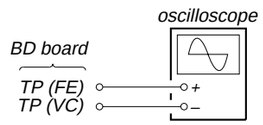
[MAIN BOARD] (Component Side)



CD SECTION

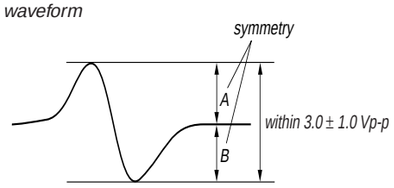
Notes:
1. CD block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (Part No.: 3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10 MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check
Connection:



Procedure:
1. Connect the oscilloscope to TP (FE) and TP (VC) on BD board.
2. Connect the TP (FEI) and TP (VC) with lead wire.
3. Turned power switch on.
4. Put disc (YEDS-18) in and turned power switch on again and actuate the focus search.
5. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.0 ± 1.0 Vp-p.

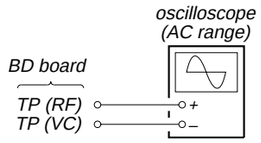
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note:
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

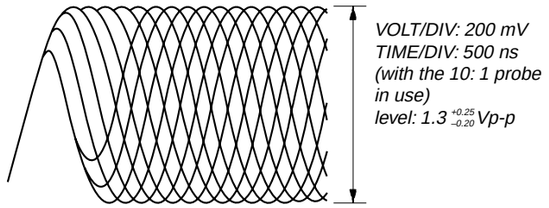
RF Level Check
Connection:



Procedure:
1. Connect the oscilloscope to TP (RF) and TP (VC) on BD board.
2. Turned power switch on. (stop mode)
3. Put disc (YEDS-18) in and press the ▷ button.
4. Confirm that the oscilloscope waveform is clear and check RF signal level is correct or not.

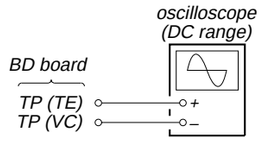
Note: Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



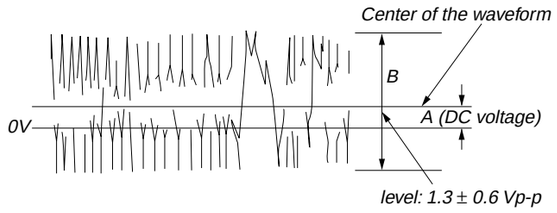
When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

E-F Balance (Traverse) Check
Connection:



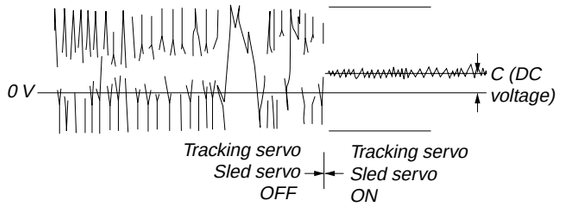
Procedure:
1. Connect the oscilloscope to TP (TE) and TP (VC) on BD board.
2. Turned power switch on.
3. Connect the SL702 and SL703 on the VIDEO board with solder.
4. Put disc (YEDS-18) in and press the ▷ button, and play the number five track.
5. Press the REPEAT button. (The tracking servo and the sledding servo are turned off.)
6. Confirm that the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the traverse waveform. Confirm the following:
   A/B × 100 = less than ±22 %

Traverse waveform



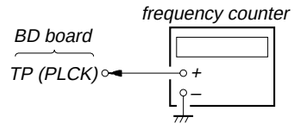
7. Press the REPEAT button. (The tracking servo and the sledding servo are turned on.) Confirm that the C (DC voltage) is almost equal to the A (DC voltage) is step 6.

Traverse waveform



8. After check, remove the soldering installed in step 3.

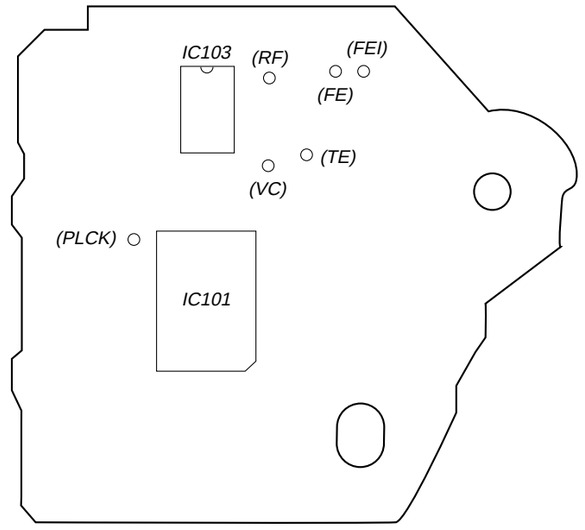
RF PLL Free-run Frequency Check
Connection:



Procedure:
1. Connect the frquency counter to TP (PLCK) on the BD board.
2. Turned power switch on.
3. Put disc (YEDS-18) in and press the ▷ button, and play the number five track.
4. Confirm that the reading on frequency counter is 4.3218 MHz.

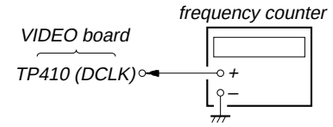
Connection Location:

[BD BOARD] (SIDE-A)



VIDEO SECTION

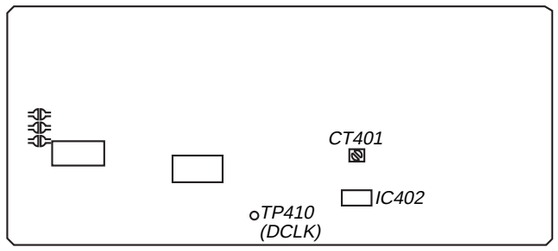
Frequency Adjustment
Connection:



Procedure:
1. Connect the frequency counter to TP410 (DCLK) on VIDEO board.
2. Turned power switch on.
3. Press the FUNCTION button to select the CD.
4. Adjust CT401 on the VIDEO board so that the frequency counter reading 13.5 MHz ± 40 Hz at stop status.

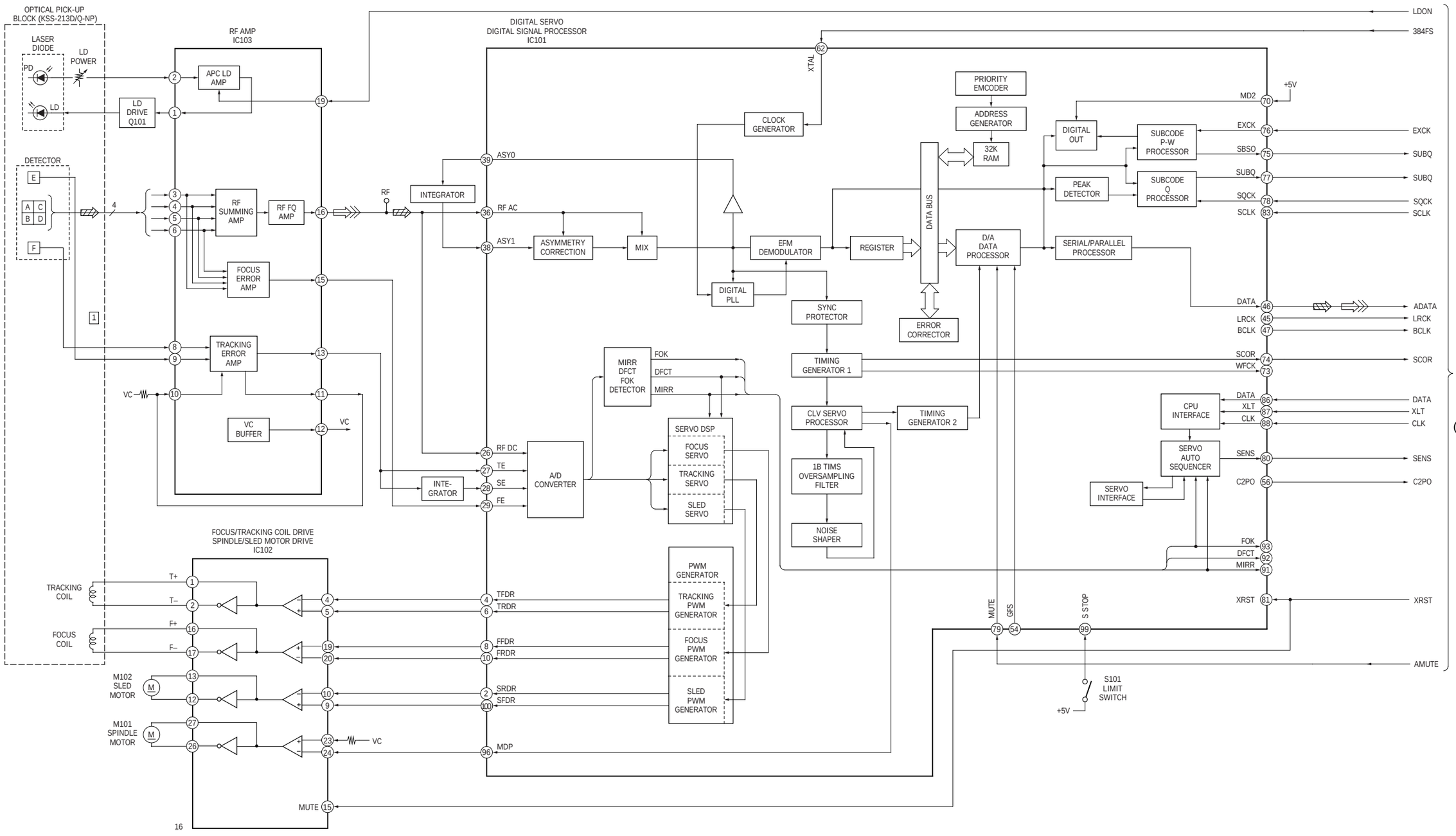
Adjustment Location:

[VIDEO BOARD] (SIDE-B)



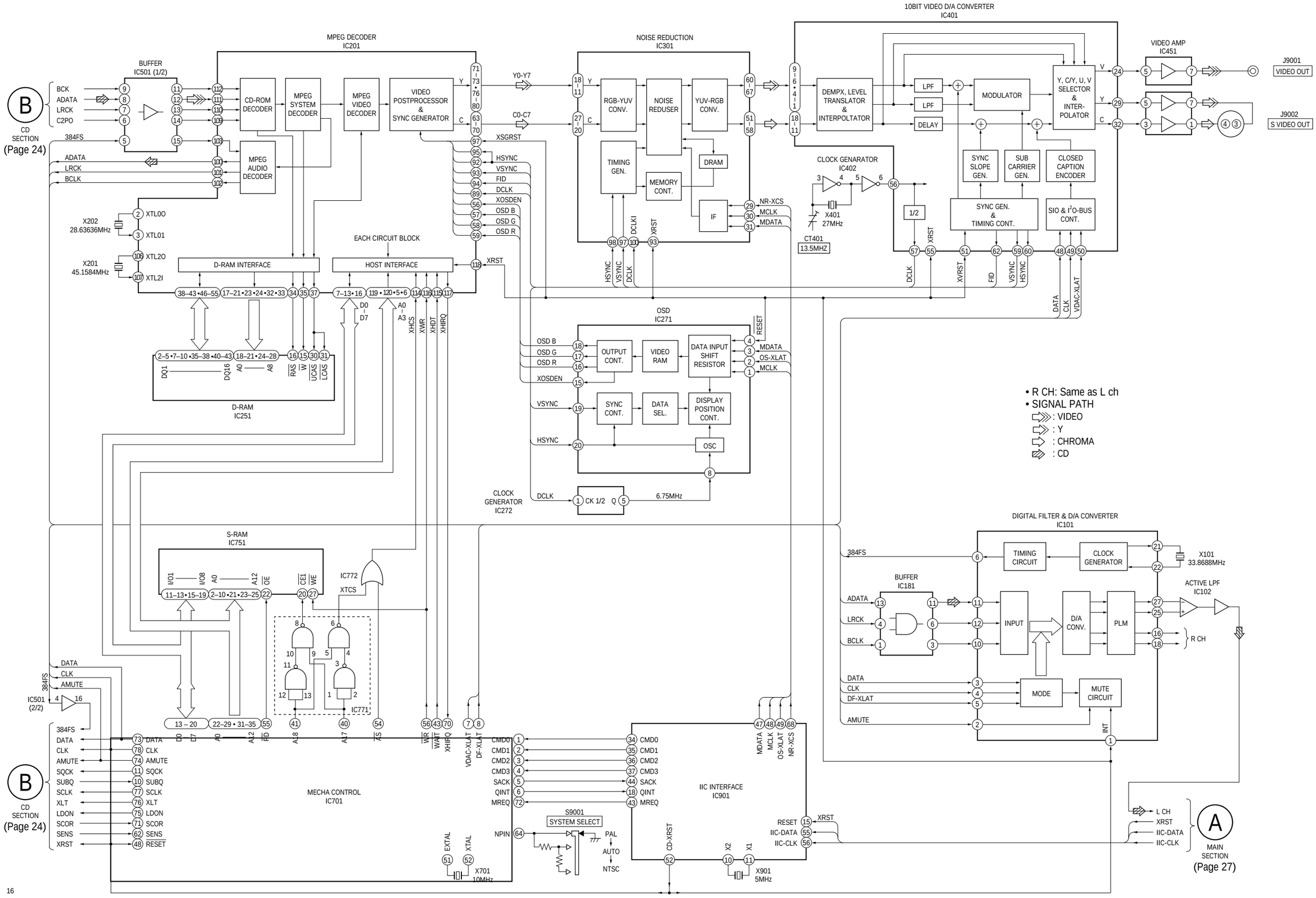
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – BD SECTION –

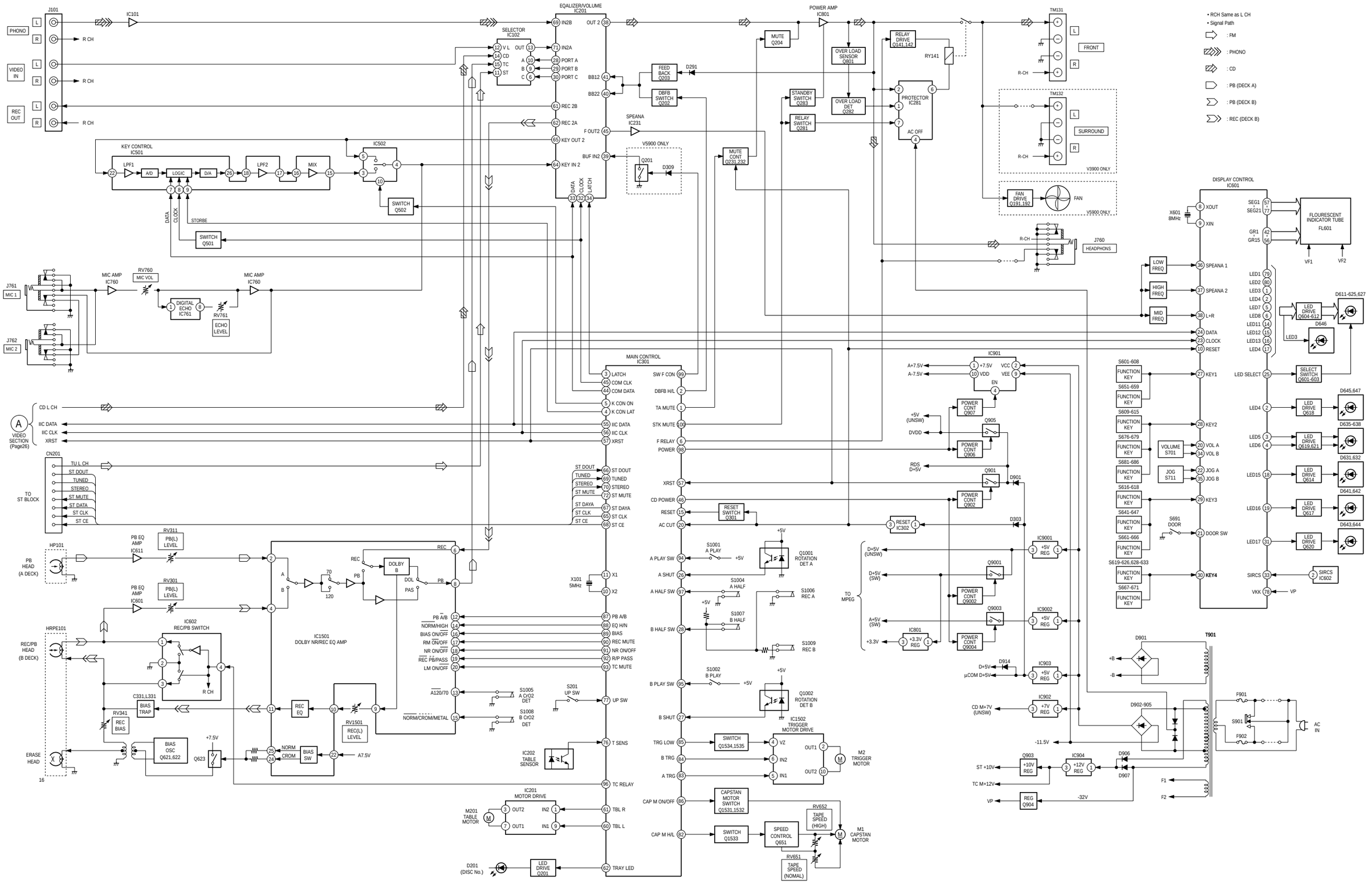


• SIGNAL PATH
: CD
: VIDEO

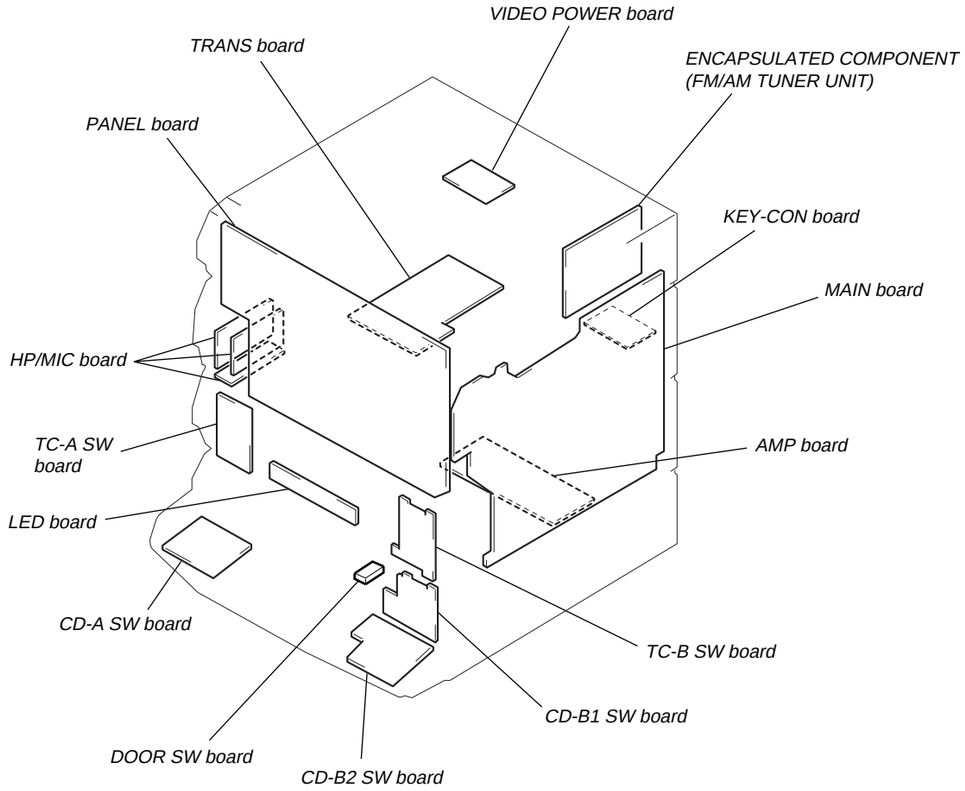
6-2. BLOCK DIAGRAM – VIDEO SECTION –

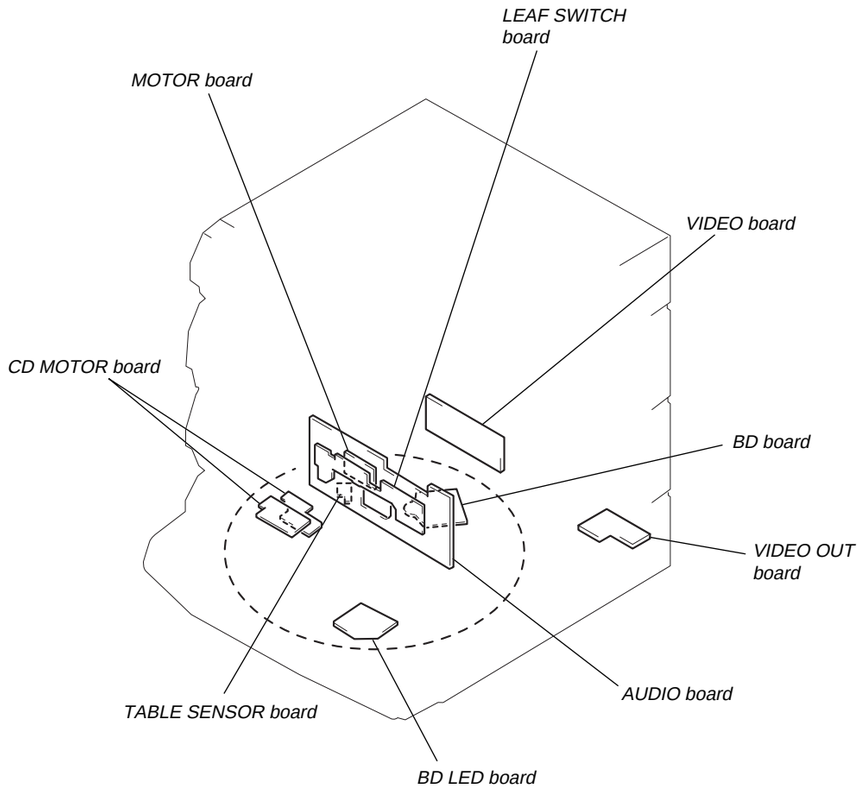


6-3. BLOCK DIAGRAM – MAIN SECTION –



6-4. CIRCUIT BOARDS LOCATION





THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this necessary note is printed in each block.)

For schematic diagrams.
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- B+ : B+ Line.
- B− : B– Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  - : FM
  - : VIDEO/MD
  - : PB (DECK A)
  - : PB (DECK B)
  - : REC (DECK B)
  - : CD
  - : PHONO

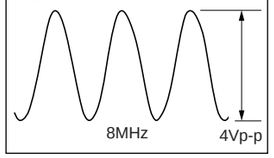
For printed wiring boards.
Note:

- : parts extracted from the component side.
- ○ : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.

• Waveform

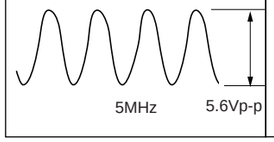
– DISPLAY SECTION –

① IC601 ⑧ (X-OUT)

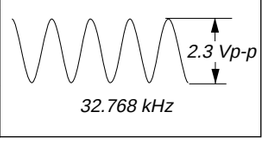


– MAIN SECTION –

① IC301 ⑩ (X2)

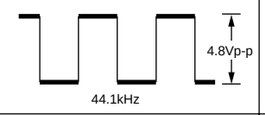


② IC301 ⑭ (XT1)

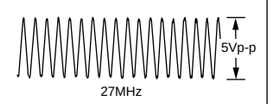


– VIDEO SECTION –

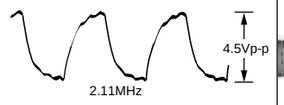
① TP115 LRCK



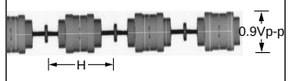
⑫ TP409 27M



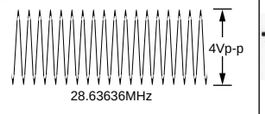
② TP117 BCLK



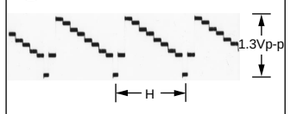
⑬ CN 103 ⑤ COUT
(TP453 COUT)



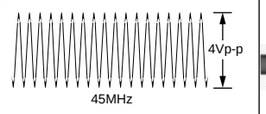
③ IC201 ② XLT0O



⑭ TP452 YOUT

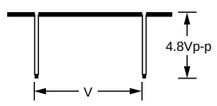


④ IC201 ㊵ XLT2O

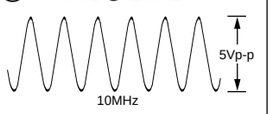


⑮ CN103 ① VOUT
(TP451 VOUT)

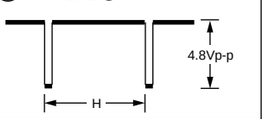
⑤ IC201 ㉝ VSYNC



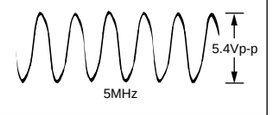
⑯ IC701 ㊶ EXTAL



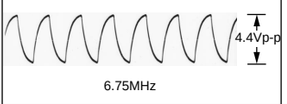
⑥ IC201 ㉜ HSYNC



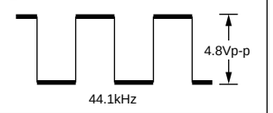
⑰ IC901 ⑩ X2



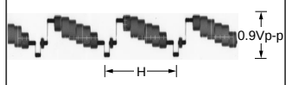
⑦ IC271 ⑧ OSCIN



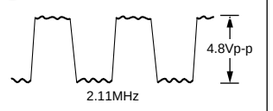
⑱ TP104 LRCK



⑧ IC401 ㉔ COMPO

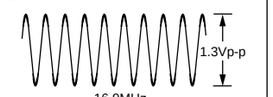


⑲ TP102 BCLK

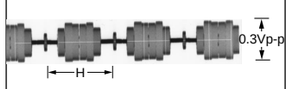


⑨ IC401 ㉙ YOUT

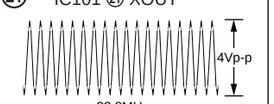
⑳ TP101 384FS



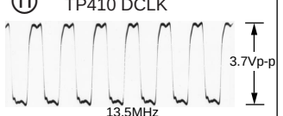
⑩ IC401 ㉜ COUT



㉑ IC101 ㉑ XOUT

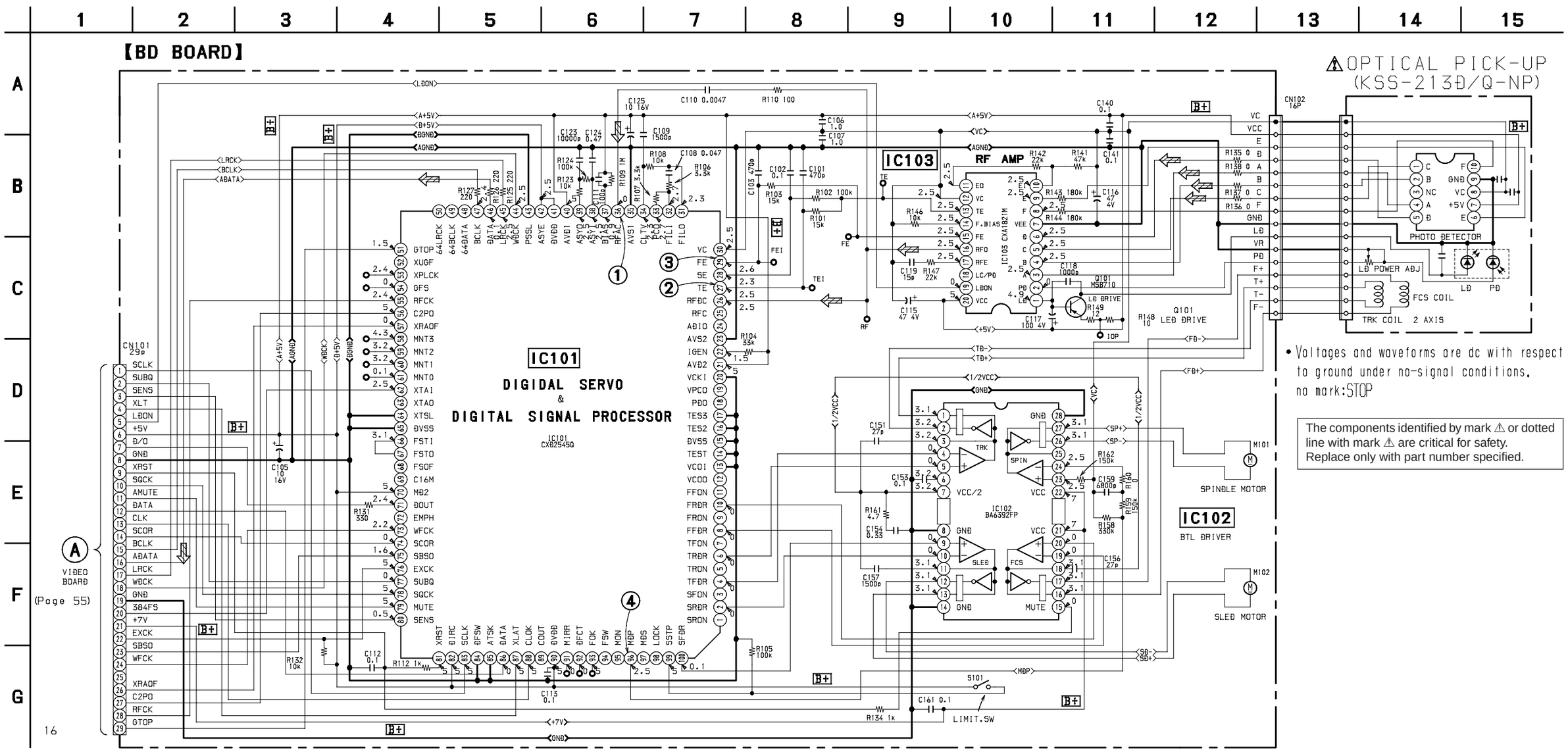


⑪ TP410 DCLK



6-5. SCHEMATIC DIAGRAM – BD SECTION –

• See page 83 for IC Block Diagrams.



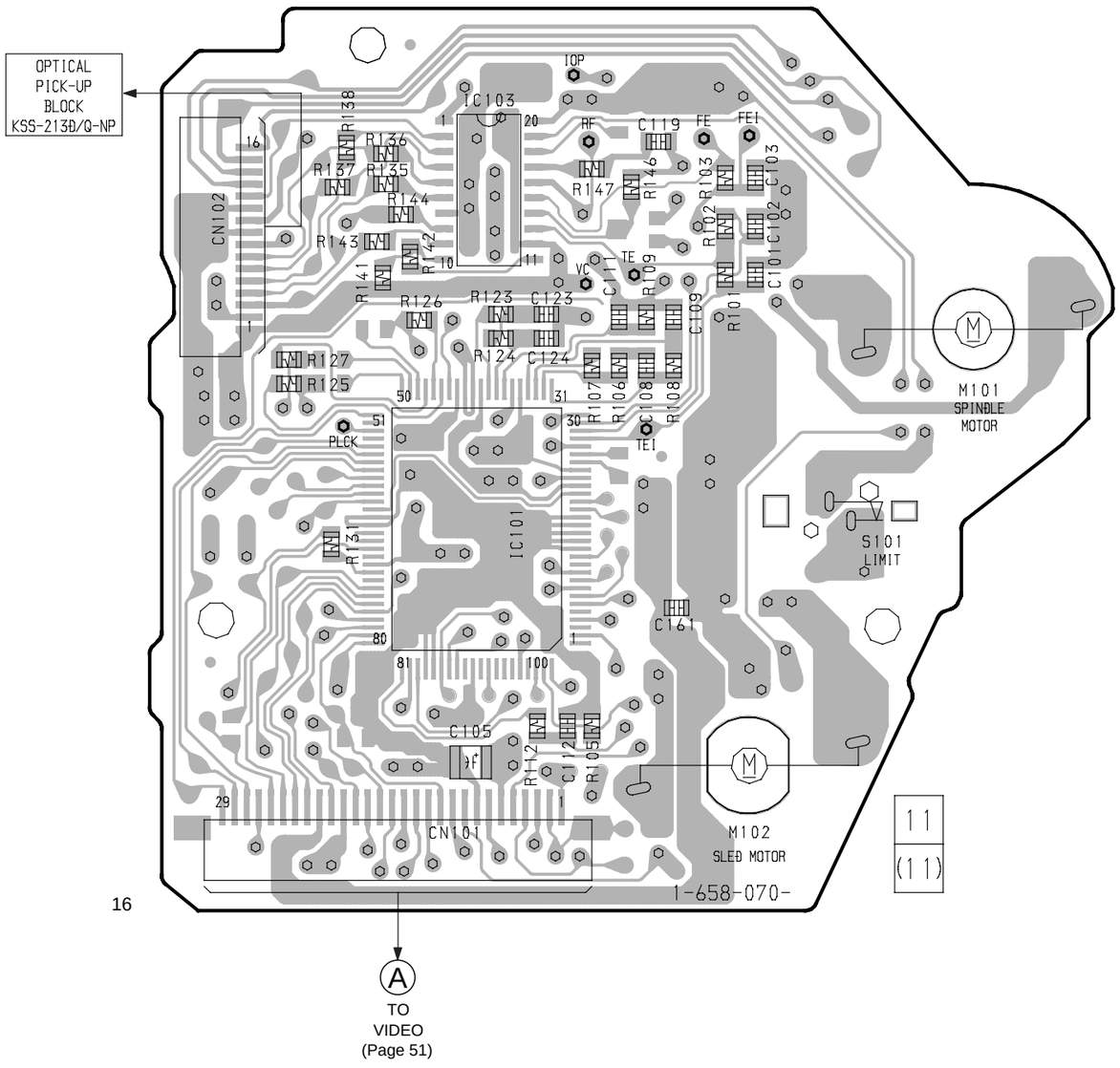
• **Waveform**

① IC101 ㉖ (RFDC)	② IC101 ㉗ (TEI) (PLAY MODE)	③ IC101 ㉙ (FE) (PLAY MODE)	④ IC101 ㊱ (RFAC)	⑤ IC101 ㊺ (LRCK)	⑥ IC101 ㊼ (BCLK)	⑦ IC101 ㊷ (XTAI)	⑧ IC103 ㊻ (MDP)
Approx. 1.3Vp-p	Approx. 0.5Vp-p	Approx. 0.2Vp-p	1.3 +0.25 −0.20 Vp-p	22.7 µsec, 5.2Vp-p	474 nsec, 5.2Vp-p	16.9344MHz, 5.2Vp-p	7.5 µsec, 2.4Vp-p

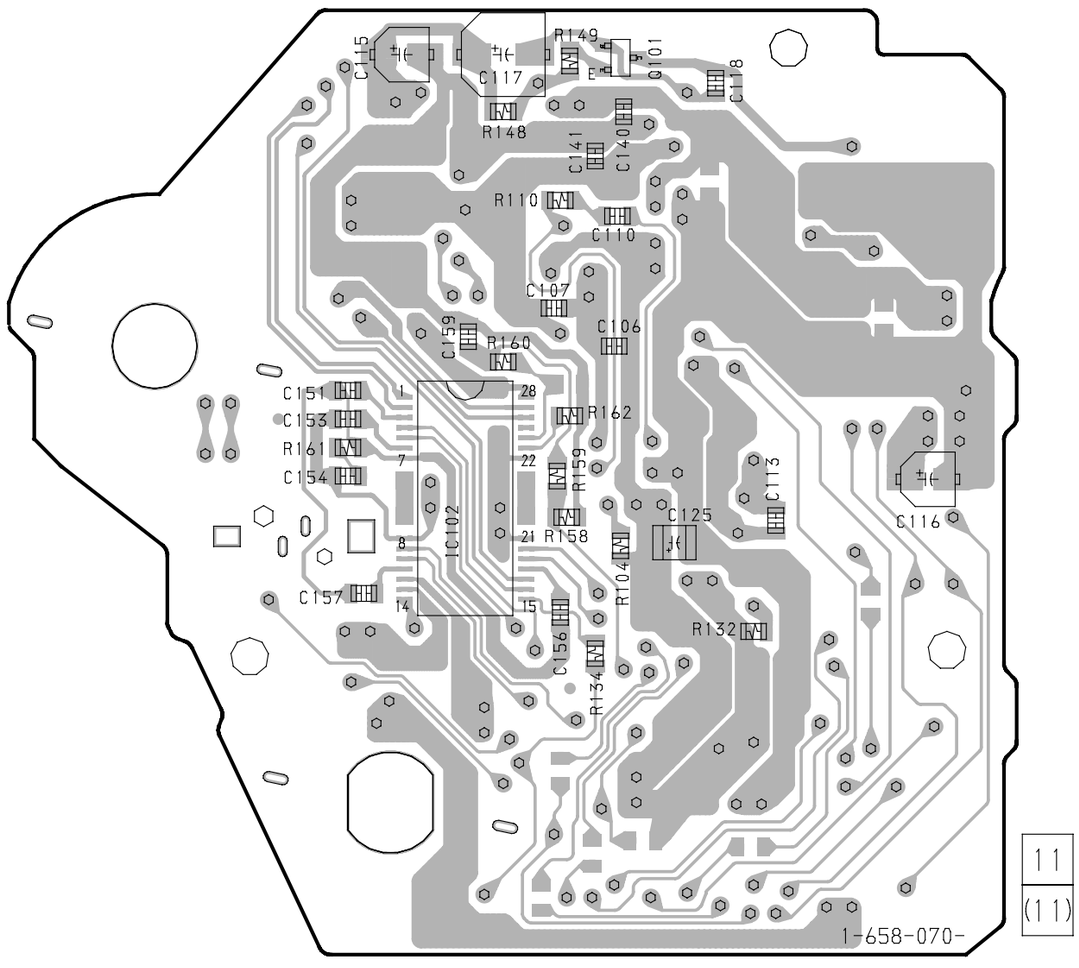
6-6. PRINTED WIRING BOARD – BD SECTION –

• See page 29 for Circuit Board Location.

【BD BOARD】(SIDE A)

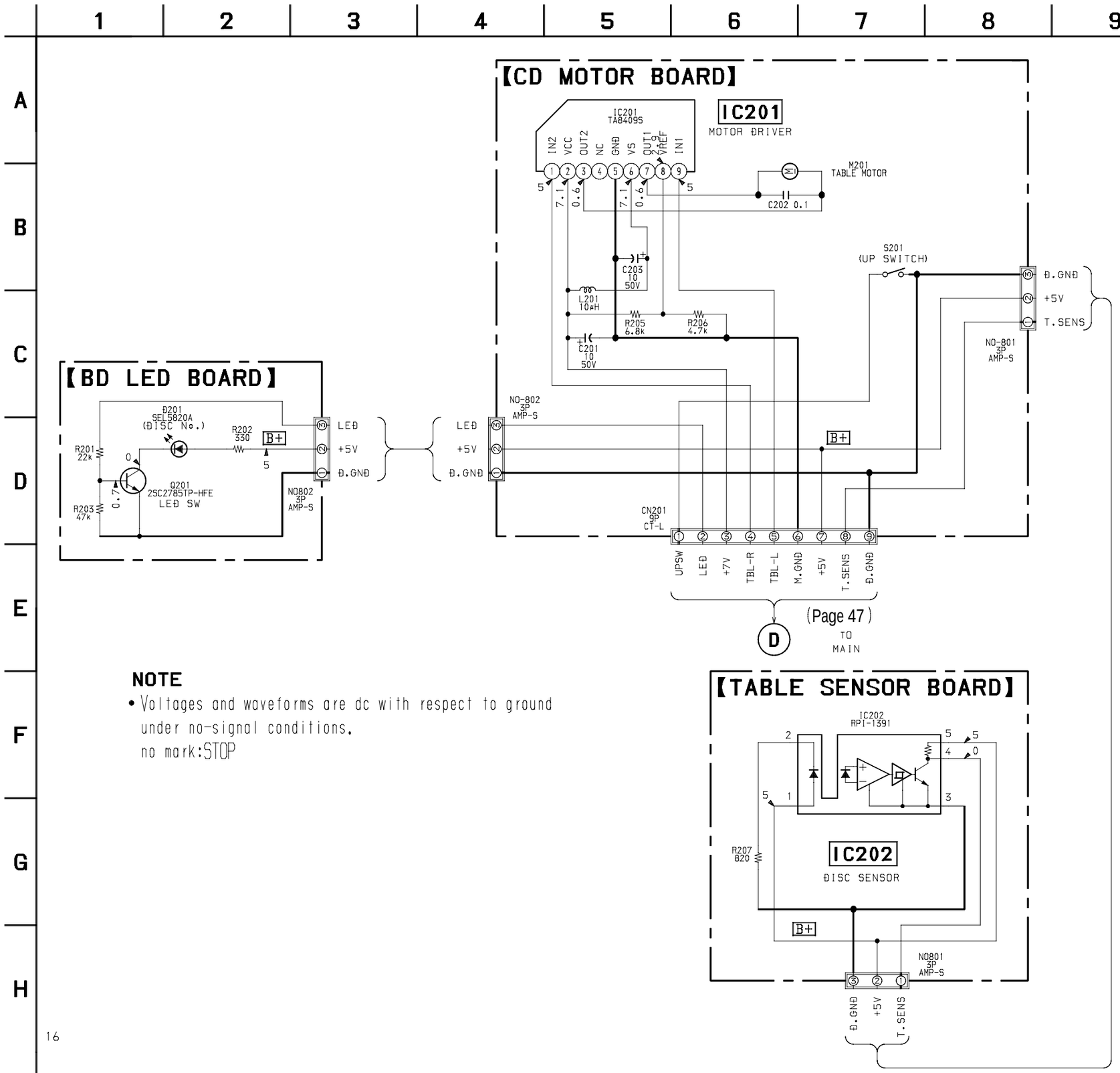


【BD BOARD】(SIDE B)



6-7. SCHEMATIC DIAGRAM – CD MOTOR SECTION –

• See page 84 for IC Block Diagrams.



NOTE

- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:STOP

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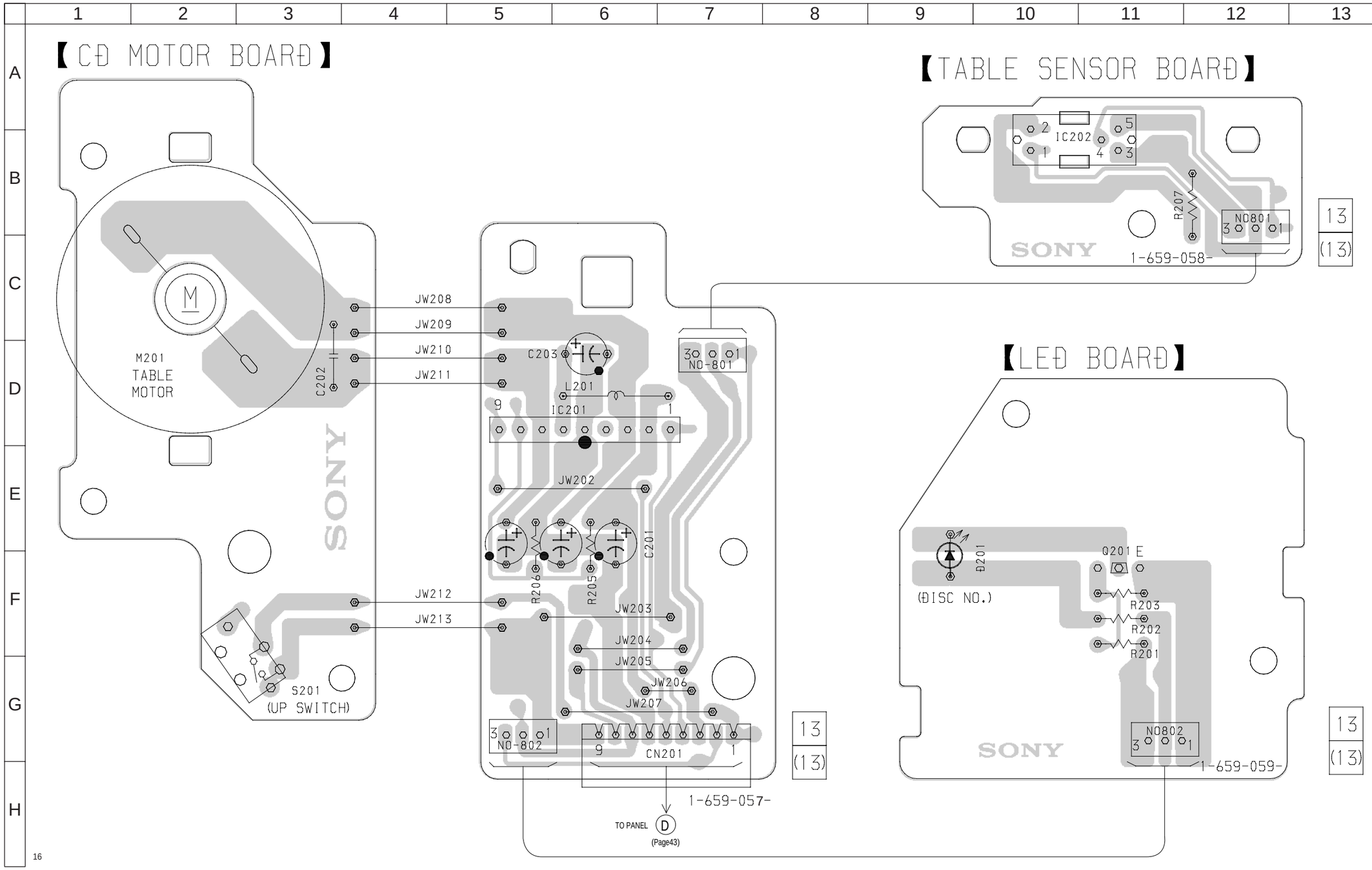
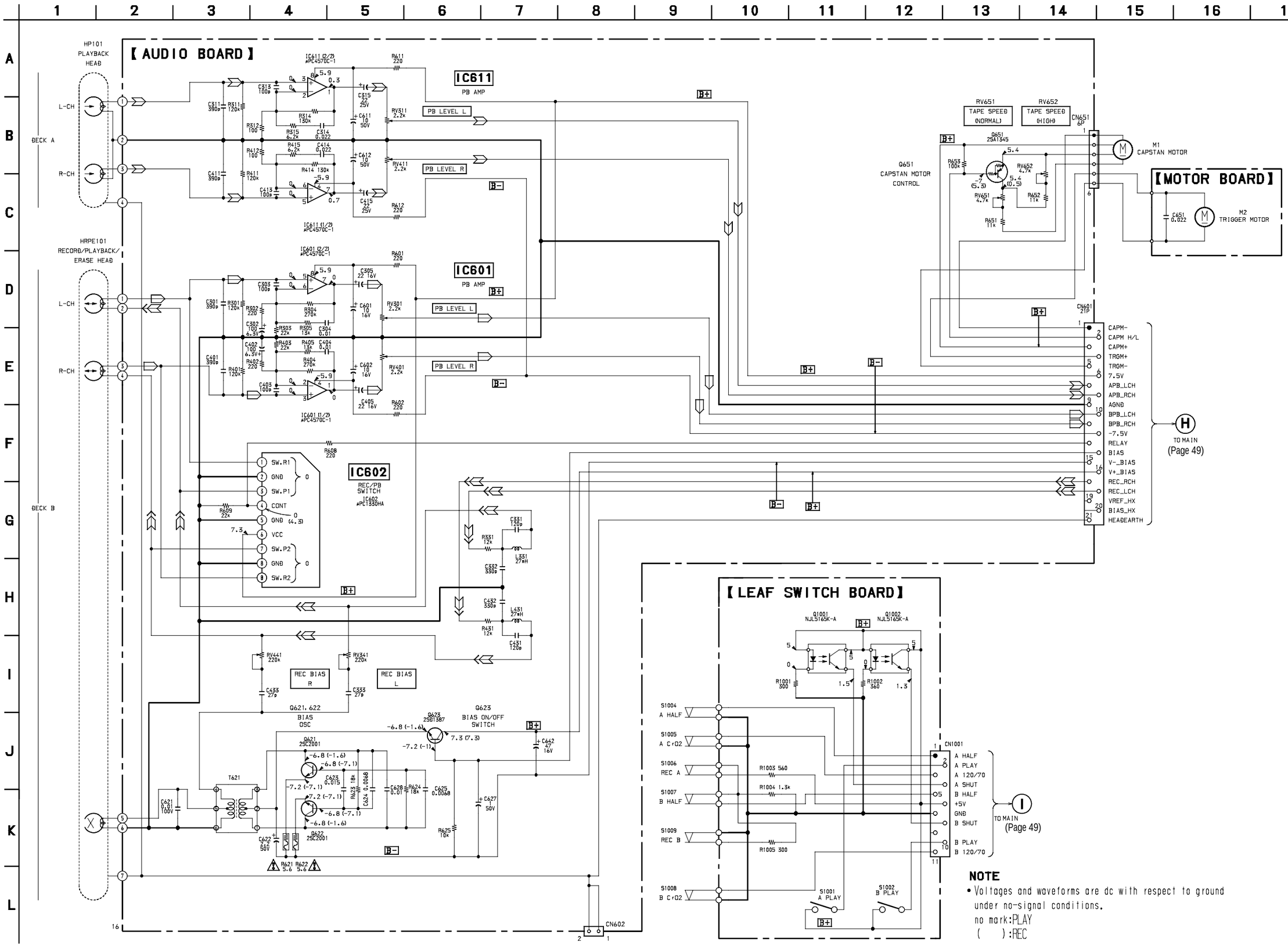
6-8. PRINTED WIRING BOARD – CD MOTOR SECTION –

• See page 29 for Circuit Board Location.



6-9. SCHEMATIC DIAGRAM – AUDIO SECTION –

• See page 84 for IC Block Diagrams.



NOTE

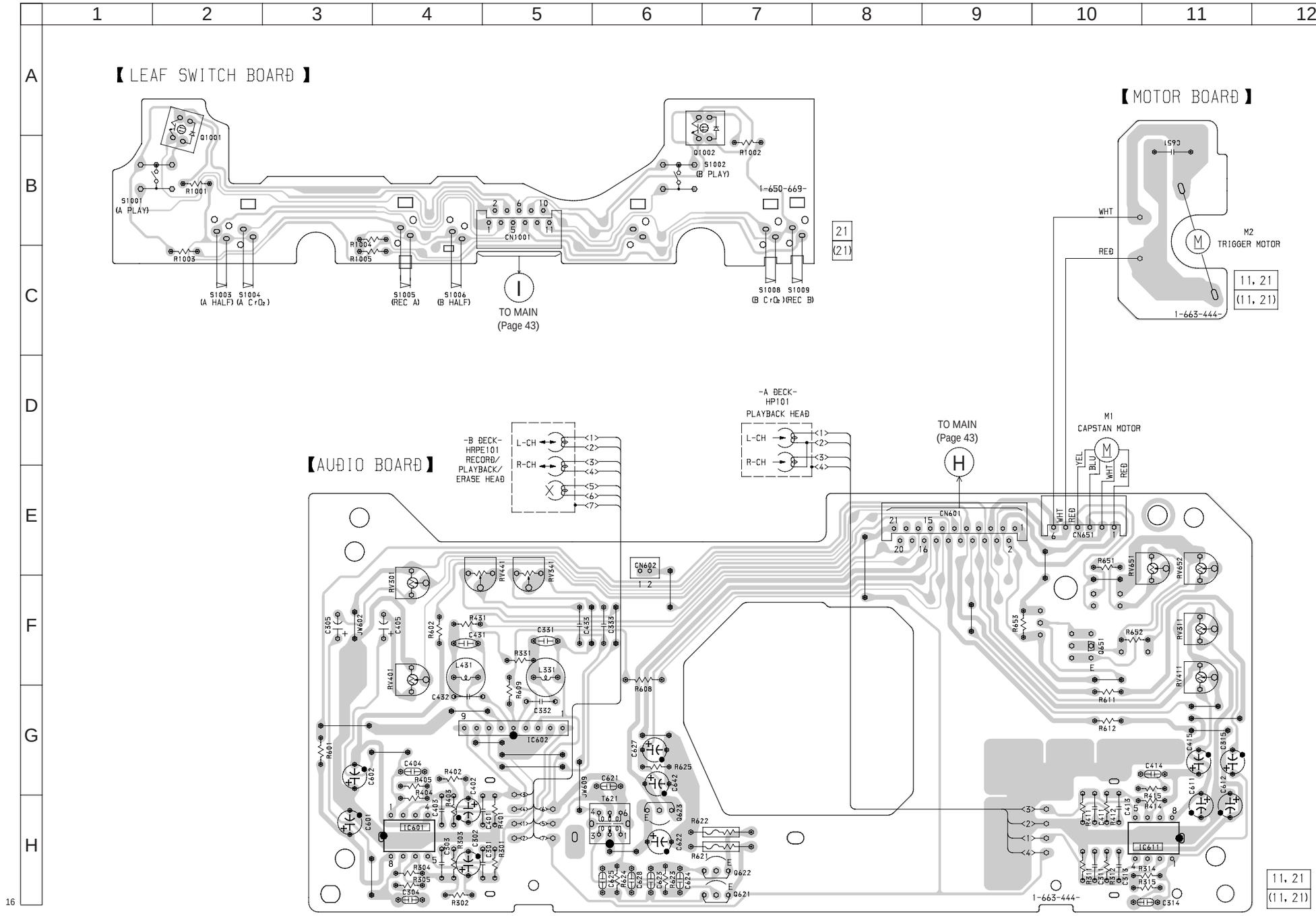
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PLAY
  ( ): REC

6-10. PRINTED WIRING BOARD – AUDIO SECTION –

• See page 29 for Circuit Board Location.

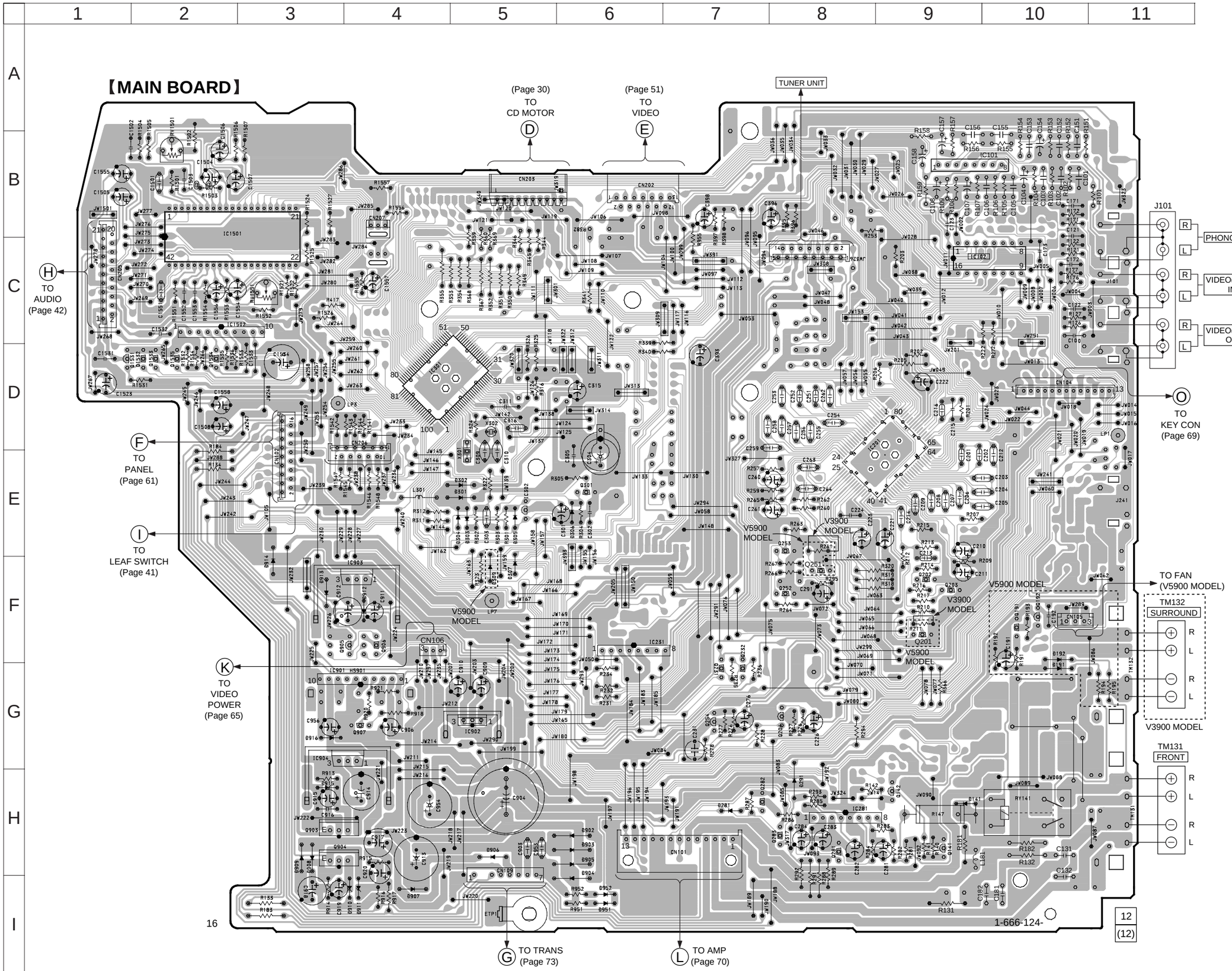
• **Semiconductor Location**

Ref. No.	Location
IC601	H-4
IC602	G-5
IC611	H-11
Q621	H-7
Q622	H-7
Q623	H-6
Q651	F-10
Q1001	A-2
Q1002	A-7



6-11. PRINTED WIRING BOARD – MAIN SECTION –

• See page 29 for Circuit Board Location.

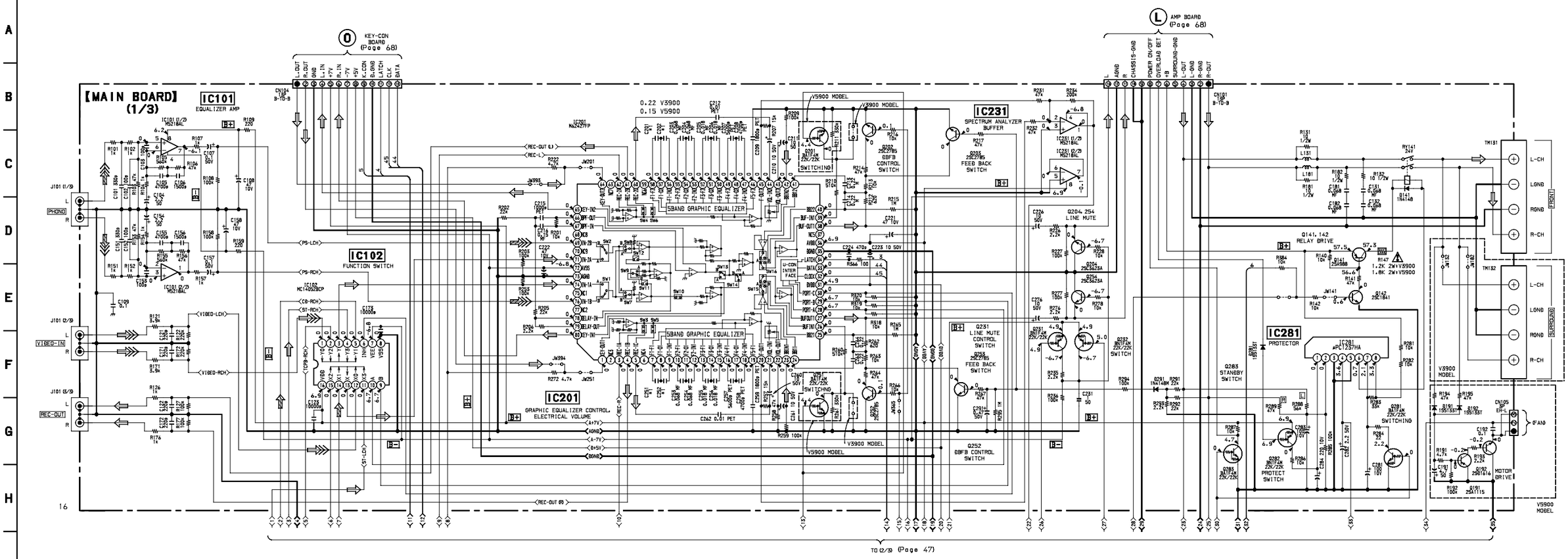


• **Semiconductor Location**

Ref. No.	Location
D141	H-9
D191	F-10
D192	F-10
D281	H-7
D291	H-8
D301	E-5
D302	E-5
D303	E-5
D304	E-5
D305	E-5
D306	E-6
D307	F-5
D309	F-5
D902	H-6
D903	H-6
D904	I-6
D905	H-6
D906	H-5
D907	I-4
D908	H-3
D909	H-3
D910	I-4
D911	I-4
D912	F-4
D913	F-3
D914	F-3
D915	H-3
D916	G-3
D951	I-6
D952	I-6
IC101	B-10
IC102	C-10
IC201	D-9
IC231	F-6
IC281	H-8
IC301	D-4
IC302	E-5
IC901	G-4
IC902	G-5
IC903	F-4
IC904	H-3
IC1501	C-2
IC1502	D-2
Q141	H-9
Q142	H-9
Q191	F-10
Q192	F-10
Q201	F-9
Q202	E-9
Q203	F-9
Q204	G-8
Q231	F-7
Q232	F-7
Q251	E-8
Q252	F-8
Q253	E-8
Q254	G-7
Q281	H-8
Q282	H-7
Q283	H-8
Q301	E-6
Q903	H-3
Q904	H-3
Q905	F-4
Q906	F-4
Q907	G-4
Q1531	D-2
Q1532	D-2
Q1533	D-2
Q1534	D-2
Q1535	D-2

6-12. SCHEMATIC DIAGRAM – MAIN SECTION (1/3) –

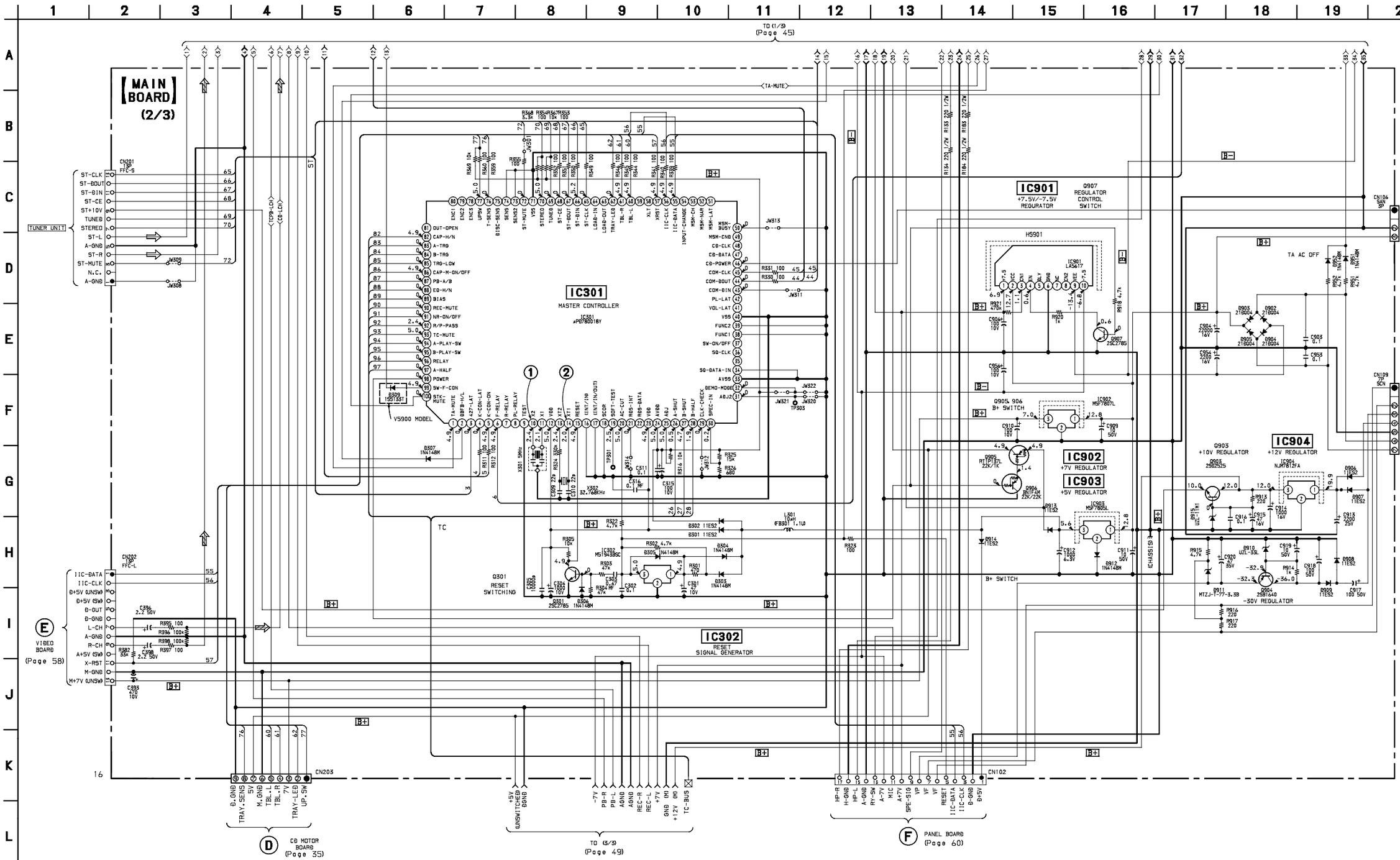
• See page 87 for IC Block Diagrams.



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

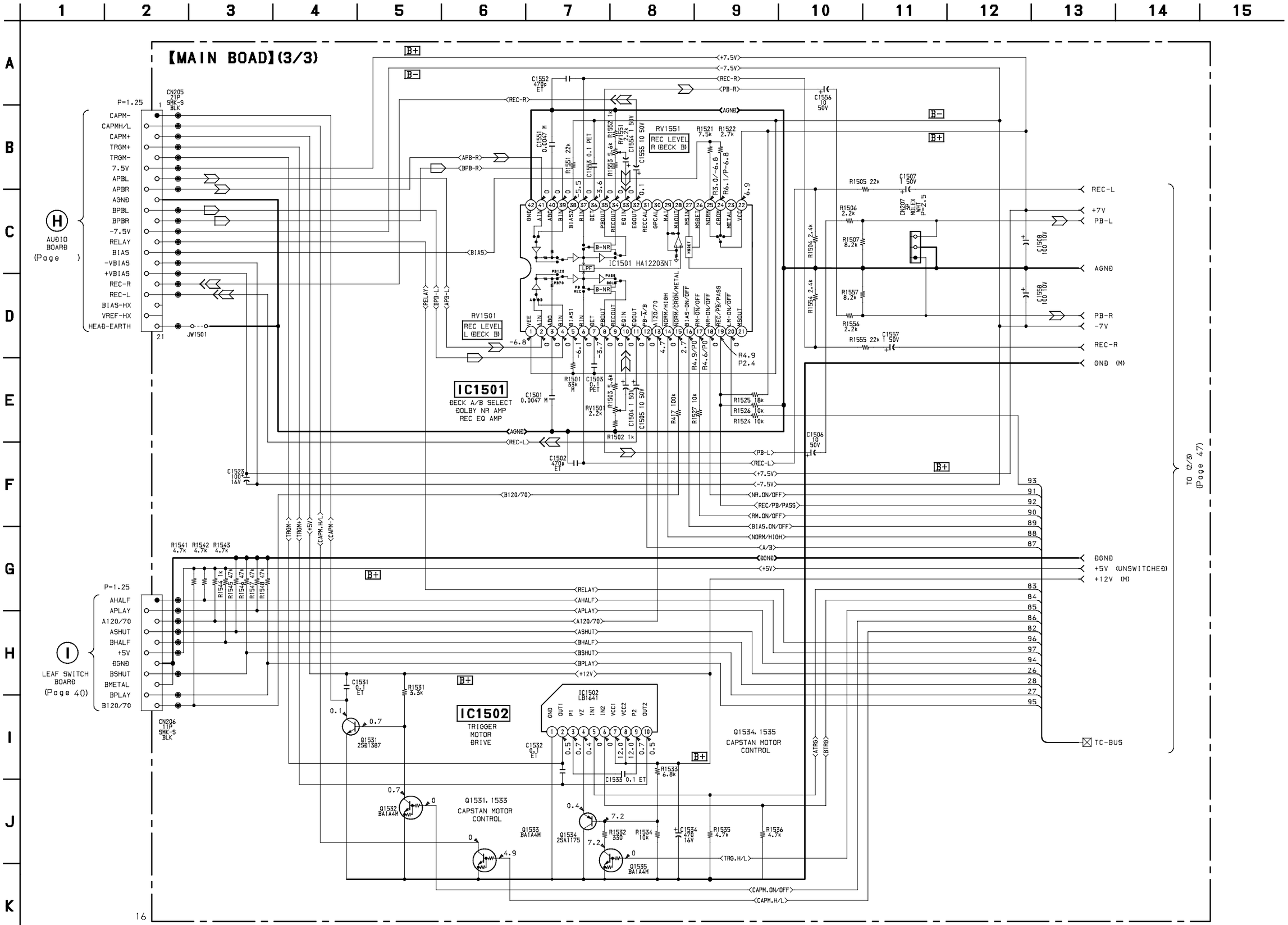
6-13. SCHEMATIC DIAGRAM – MAIN SECTION (2/3) –

• See page 43 for Printed Wiring Board. • See page 74 for IC Pin Function Description. • See page 87 for IC Block Diagrams. • See page 30 for Waveforms.



6-14. SCHEMATIC DIAGRAM – MAIN SECTION (3/3) –

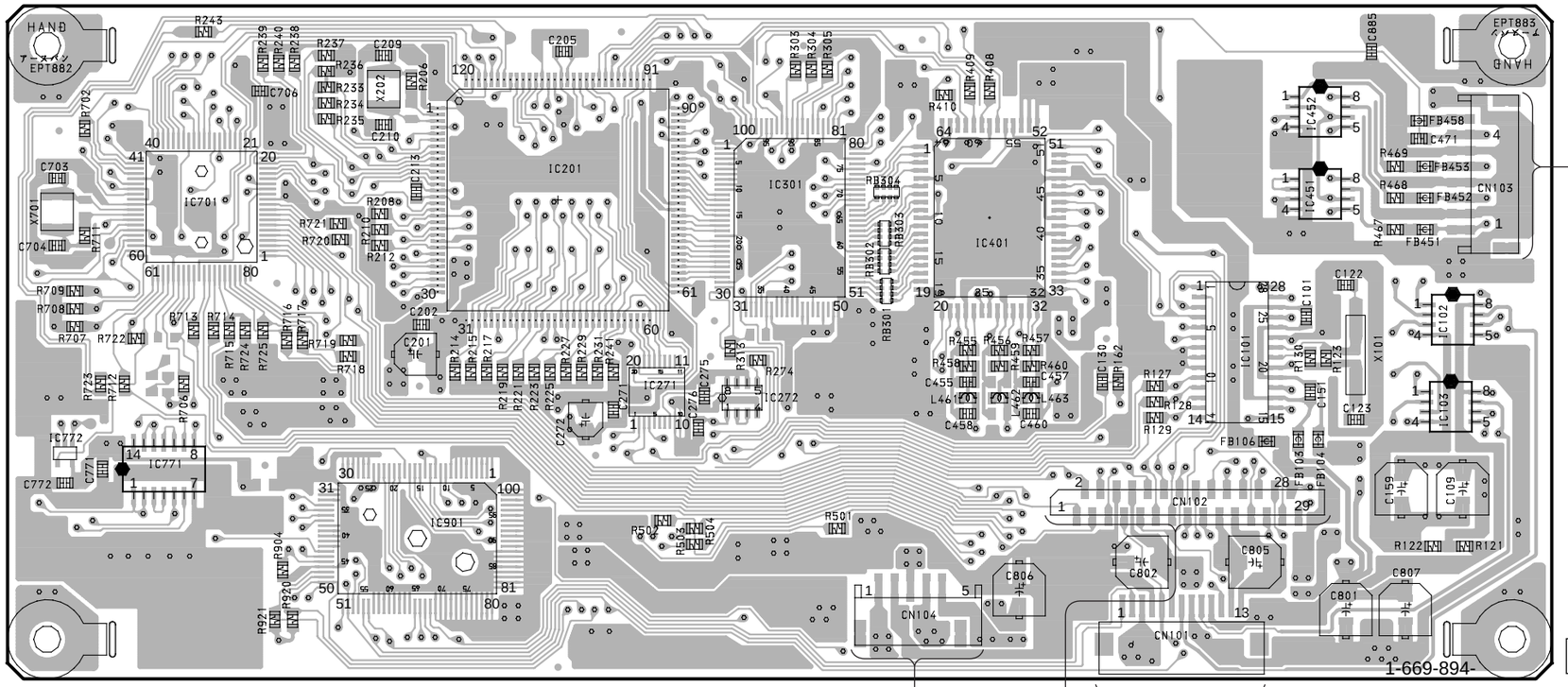
• See page 43 for Printed Wiring Board. • See page 87 for IC Block Diagrams.



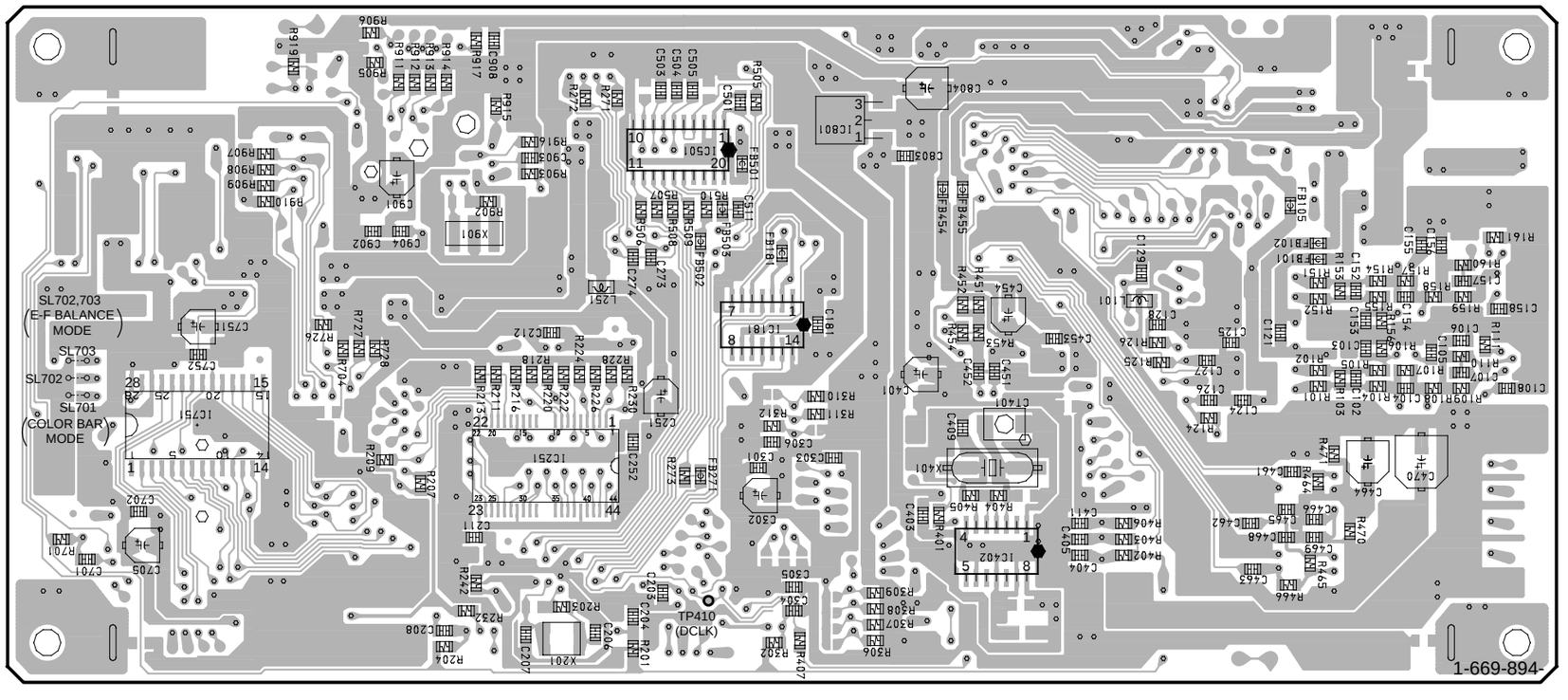
6-15. PRINTED WIRING BOARD – VIDEO SECTION –

• See page 29 for Circuit Board Location.

【VIDEO BOARD】(SIDE A)



【VIDEO BOARD】(SIDE B)



• **Semiconductor Location**

Ref. No.	Location
IC101	C-9
IC102	B-10
IC103	C-10
IC181	H-6
IC201	B-5
IC251	I-5
IC271	C-5
IC272	C-6
IC301	B-6
IC401	B-7
IC402	I-7
IC451	B-9
IC452	A-9
IC501	G-5
IC701	B-3
IC751	H-3
IC771	D-2
IC772	C-2
IC801	F-6
IC901	D-4

6-16. SCHEMATIC DIAGRAM – VIDEO SECTION (1/3) –

• See page 85 for IC Block Diagrams. • See page 30 for Waveforms.

【VIDEO BOARD】(1/3)

IC201
MPEG VIDEO/
AUDIO DECODER
IC201
CXD1852Q

IC181
LEVEL SHIFT
IC181
SN74HCT08

IC272
TIMING

IC271
ON SCREEN
DISPLAY CONTROLLER

IC251
D-RAM
IC251
M5M44260CTP-7S

IC301
VIDEO NOISE REDUCTION
IC301 CXD1854Q

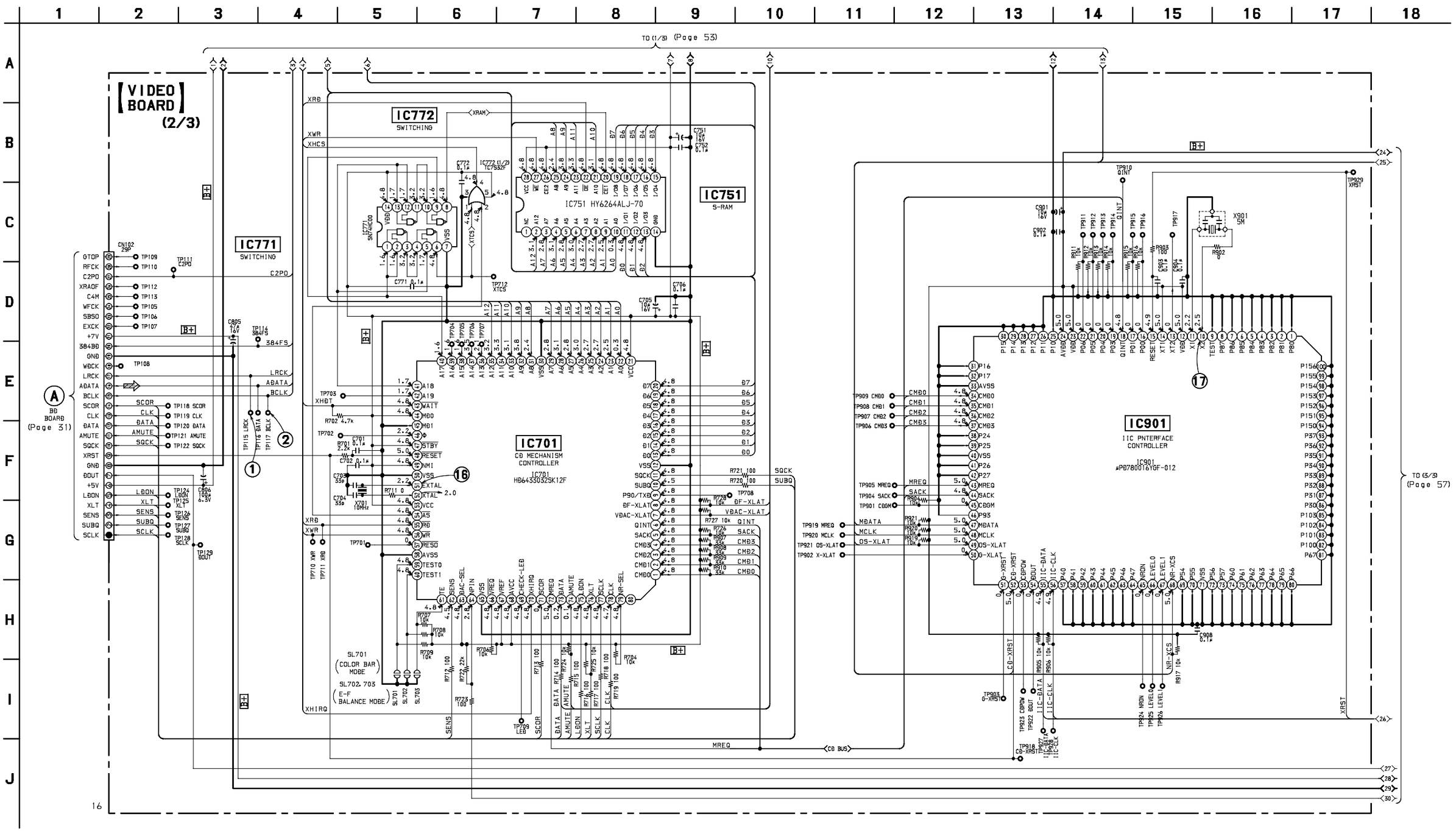
IC501
BUFFER
IC501
SN74HC245

TO (2/3) (Page 55)

TO (3/3) (Page 57)

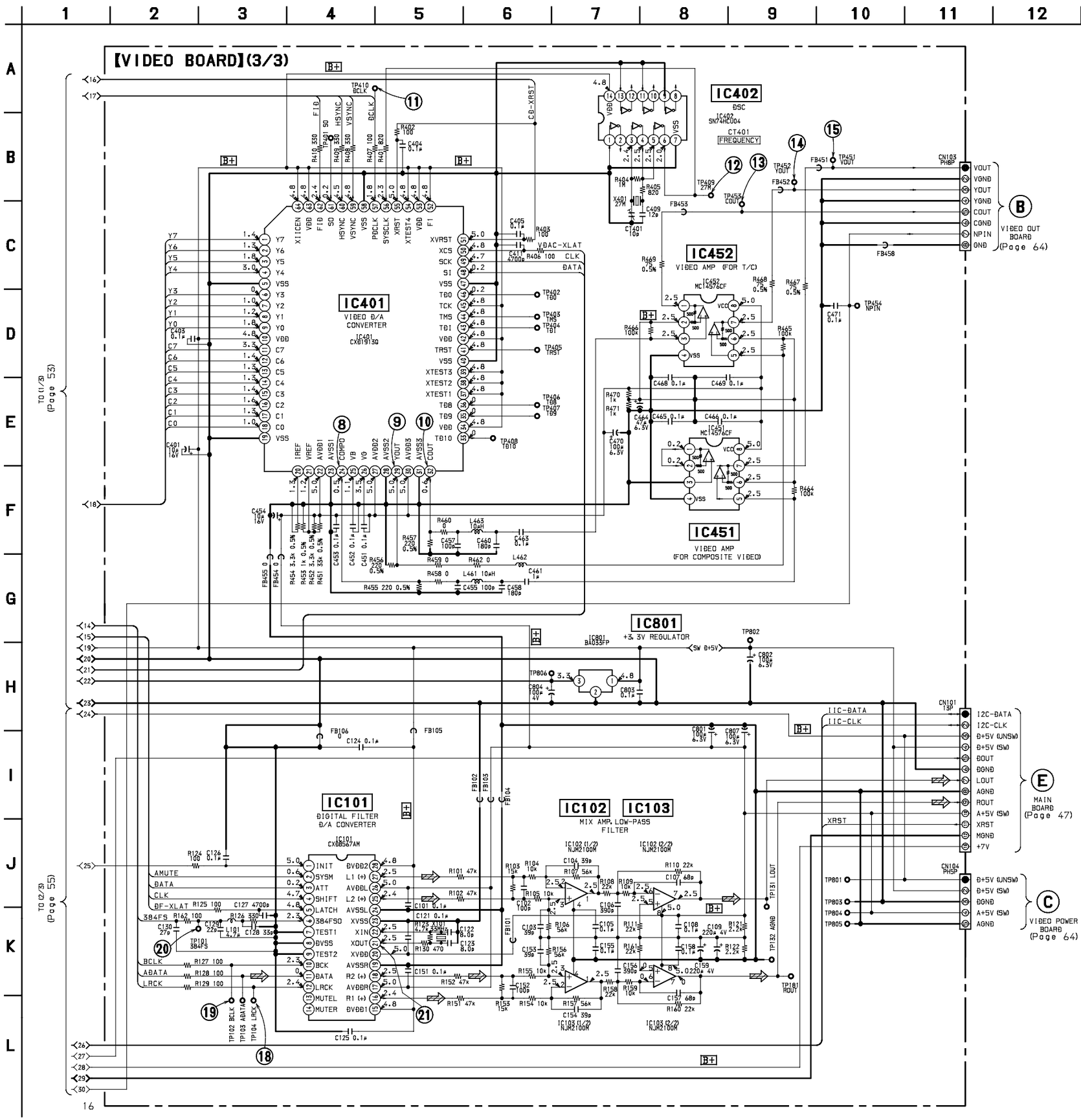
6-17. SCHEMATIC DIAGRAM – VIDEO SECTION (2/3) –

• See page 51 for Printed Wiring Board. • See page 79 for IC Pin Function Description. • See page 30 for Waveforms.



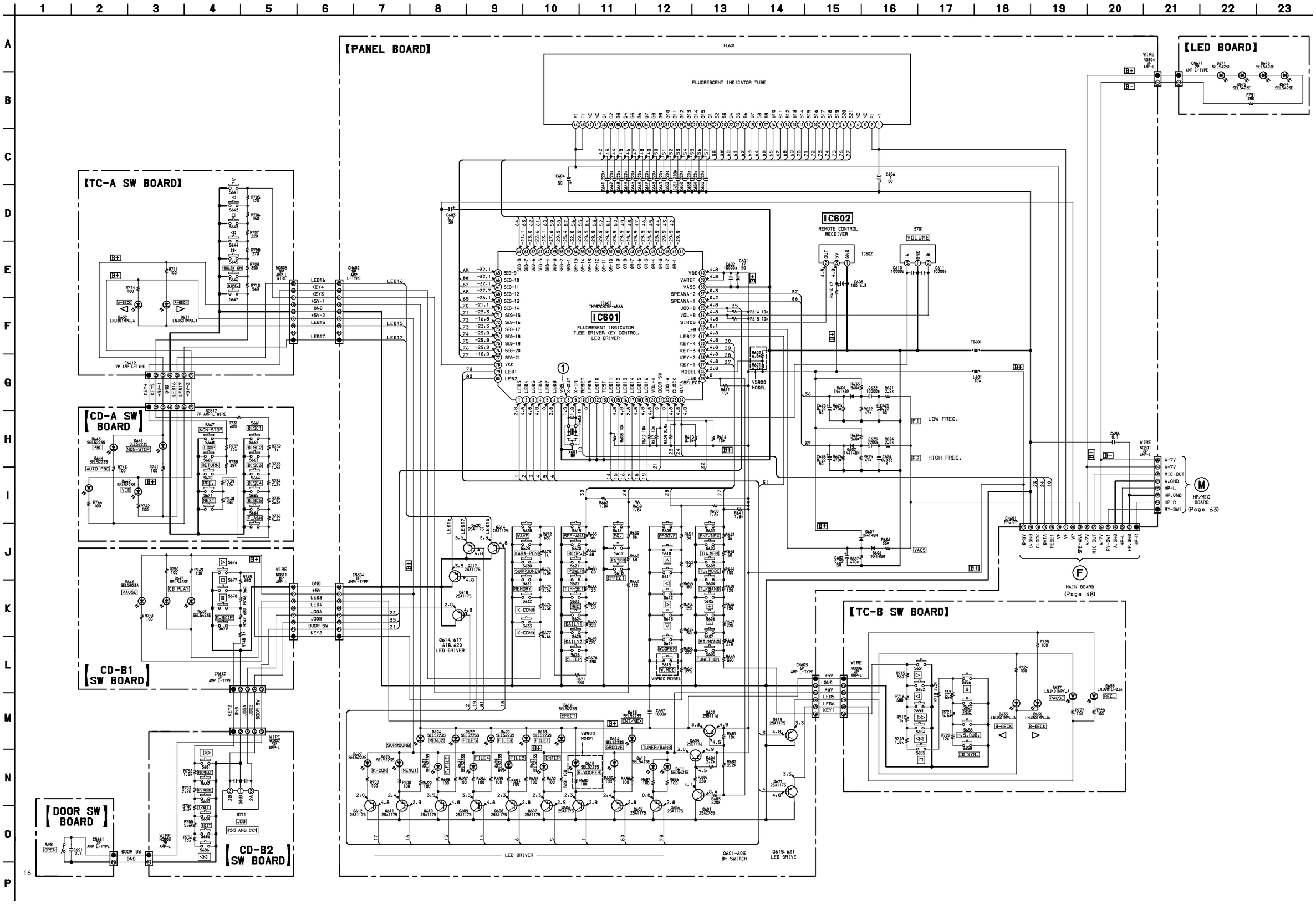
6-18. SCHEMATIC DIAGRAM – VIDEO SECTION (3/3) –

• See page 51 for Printed Wiring Board. • See page 85 for IC Block Diagrams. • See page 30 for Waveforms.



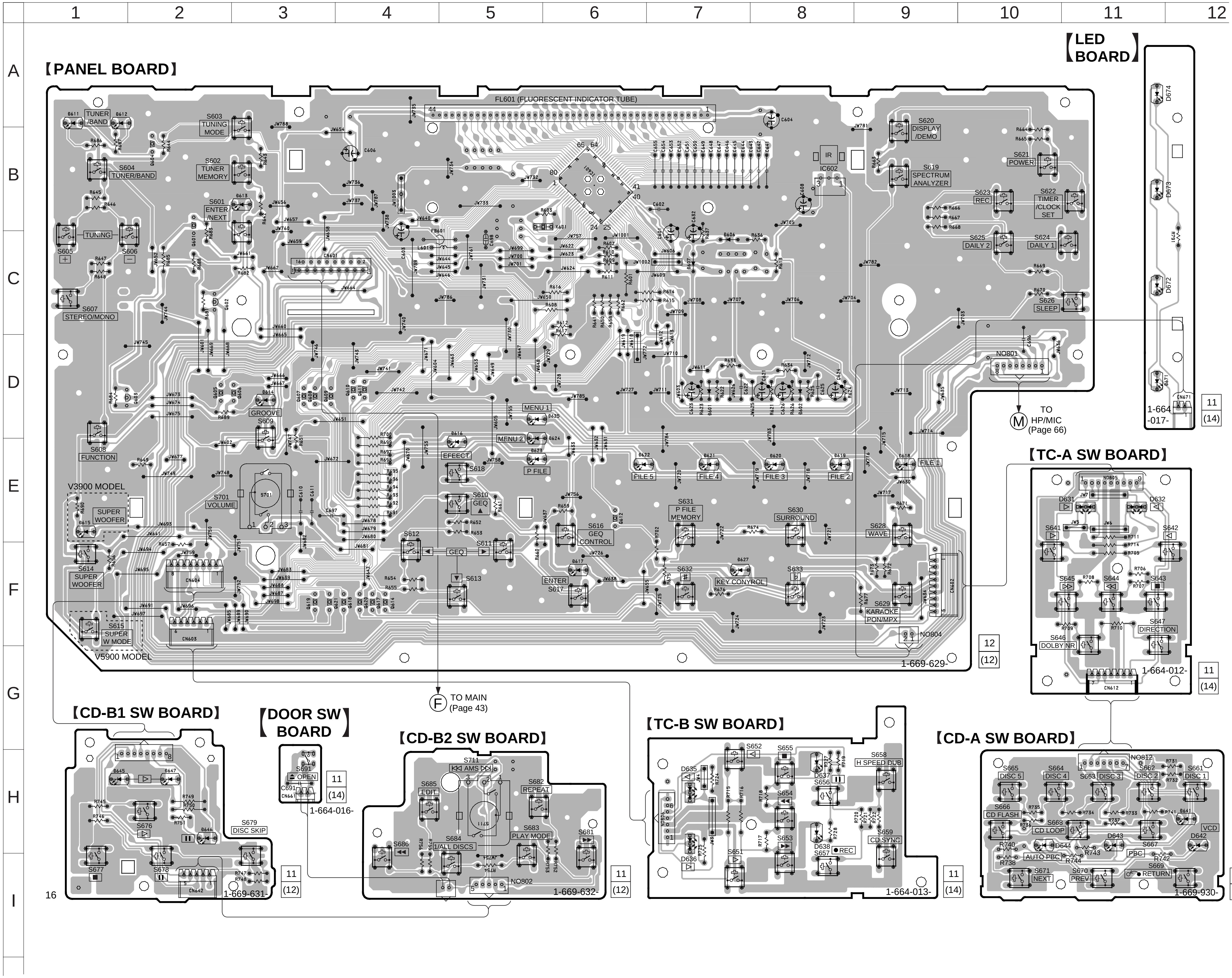
6-19. SCHEMATIC DIAGRAM – PANEL SECTION –

• See page 77 for IC Pin Function Description. • See page 30 for Waveforms.



6-20. PRINTED WIRING BOARD – PANEL SECTION –

• See page 29 for Circuit Board Location.

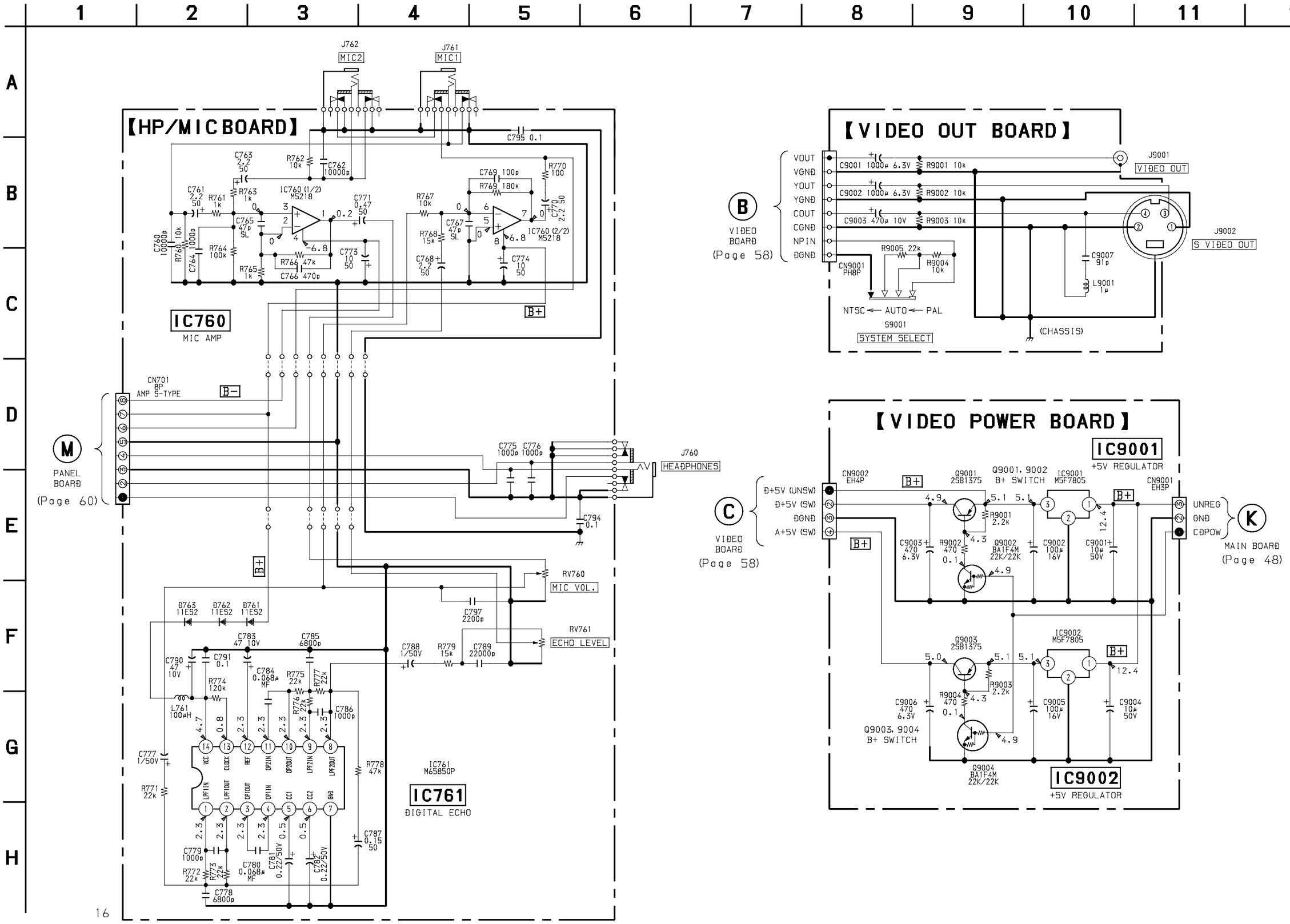

【PANEL BOARD】
FL601 (FLUORESCENT INDICATOR TUBE)
IC601
IC602
S603 TUNING MODE
S602 TUNER MEMORY
S601 ENTER /NEXT
S604 TUNER/BAND
S605 +
S606 −
TUNING
S607 STEREO/MONO
S608 FUNCTION
S609 GROOVE
V3900 MODEL
SUPER WOOFER
S614 SUPER WOOFER
S615 SUPER W MODE
V5900 MODEL
S701 VOLUME
S612
S611
GEQ
S613
S610 GEQ
S618 EFEECT
MENU 1
MENU 2
P FILE
S616 GEQ CONTROL
ENTER
S617
S631 P FILE MEMORY
S630 SURROUND
S632
KEY CONYROL
S633
FILE 5
FILE 4
FILE 3
FILE 2
FILE 1
S628 WAVE
S629 KARAOKE PON/MPX
NO804
1-669-629-
12
(12)
S620 DISPLAY /DEMO
S619 SPECTRUM ANALYZER
S621 POWER
S623 REC
S622 TIMER /CLOCK SET
S625 DAILY 2
S624 DAILY 1
S626 SLEEP
NO801
TO HP/MIC (Page 66)
【LED BOARD】
D674
D673
D672
D671
1-664 -017-
11
(14)
【TC-A SW BOARD】
NO805
D631
D632
S641
S642
S645
S644
S643
S646 DOLBY NR
S647 DIRECTION
CN612
1-664-012-
11
(14)
TO MAIN (Page 43)
【CD-B1 SW BOARD】
S676
S677
S678
S679 DISC SKIP
1-669-631-
11
(12)
【DOOR SW BOARD】
S691 OPEN
1-664-016-
11
(14)
【CD-B2 SW BOARD】
S711 AMS
S685 EDIT
S682 REPEAT
S683 PLAY MODE
S684 1/ALL DISCS
S686
S681
NO802
1-669-632-
11
(12)
【TC-B SW BOARD】
S652
S655
S658 H SPEED DUB
S654
S656
S653
S651
S657 REC
S659 CD SYNC
1-664-013-
11
(14)
【CD-A SW BOARD】
NO812
S665 DISC 5
S664 DISC 4
S663 DISC 3
S662 DISC 2
S661 DISC 1
S666 CD FLASH
S668 CD LOOP
VCD
AUTO PBC
S667 PBC
S671 NEXT
S670 PREV
S669 RETURN
1-669-930-
11
(12)

• Semiconductor Location

Ref. No.	Location
D601	D-7
D602	D-8
D606	C-7
D607	C-7
D611	A-1
D612	A-1
D613	B-3
D614	D-3
D615	E-1
D616	E-5
D617	F-6
D618	E-9
D619	E-8
D620	E-8
D621	E-7
D622	E-7
D623	E-5
D624	E-5
D625	D-5
D627	F-8
D631	E-11
D632	E-11
D635	H-7
D636	H-7
D637	G-8
D638	H-8
D641	H-12
D642	H-12
D643	H-11
D644	H-10
D645	H-1
D646	H-2
D647	H-2
D671	D-11
D672	C-11
D673	B-11
D674	A-11
IC601	B-6
IC602	B-8
Q601	B-2
Q602	C-2
Q603	D-2
Q604	B-2
Q605	D-2
Q606	D-3
Q607	D-3
Q608	D-3
Q609	D-3
Q610	D-4
Q611	D-4
Q612	E-6
Q614	F-4
Q617	F-4
Q618	F-4
Q619	F-3
Q620	F-4
Q621	F-3

6-21. SCHEMATIC DIAGRAM – VIDEO OUT SECTION –

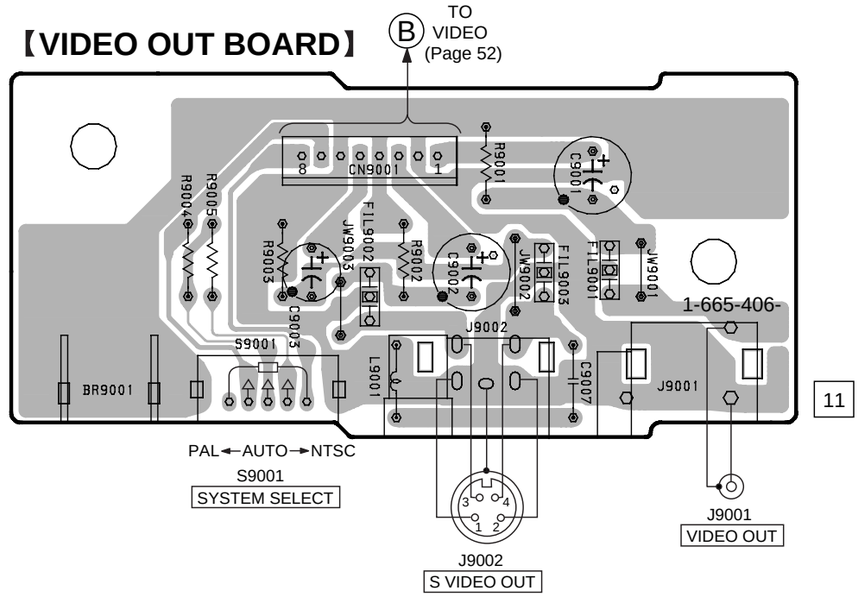
• See page 84 for IC Block Diagrams.



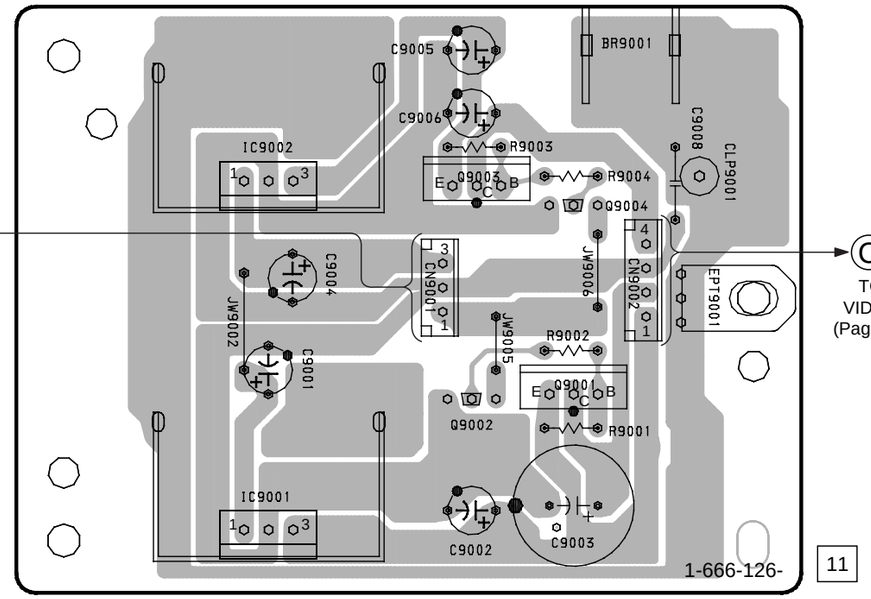
6-22. PRINTED WIRING BOARD – VIDEO OUT SECTION –

• See page 29 for Circuit Board Location.

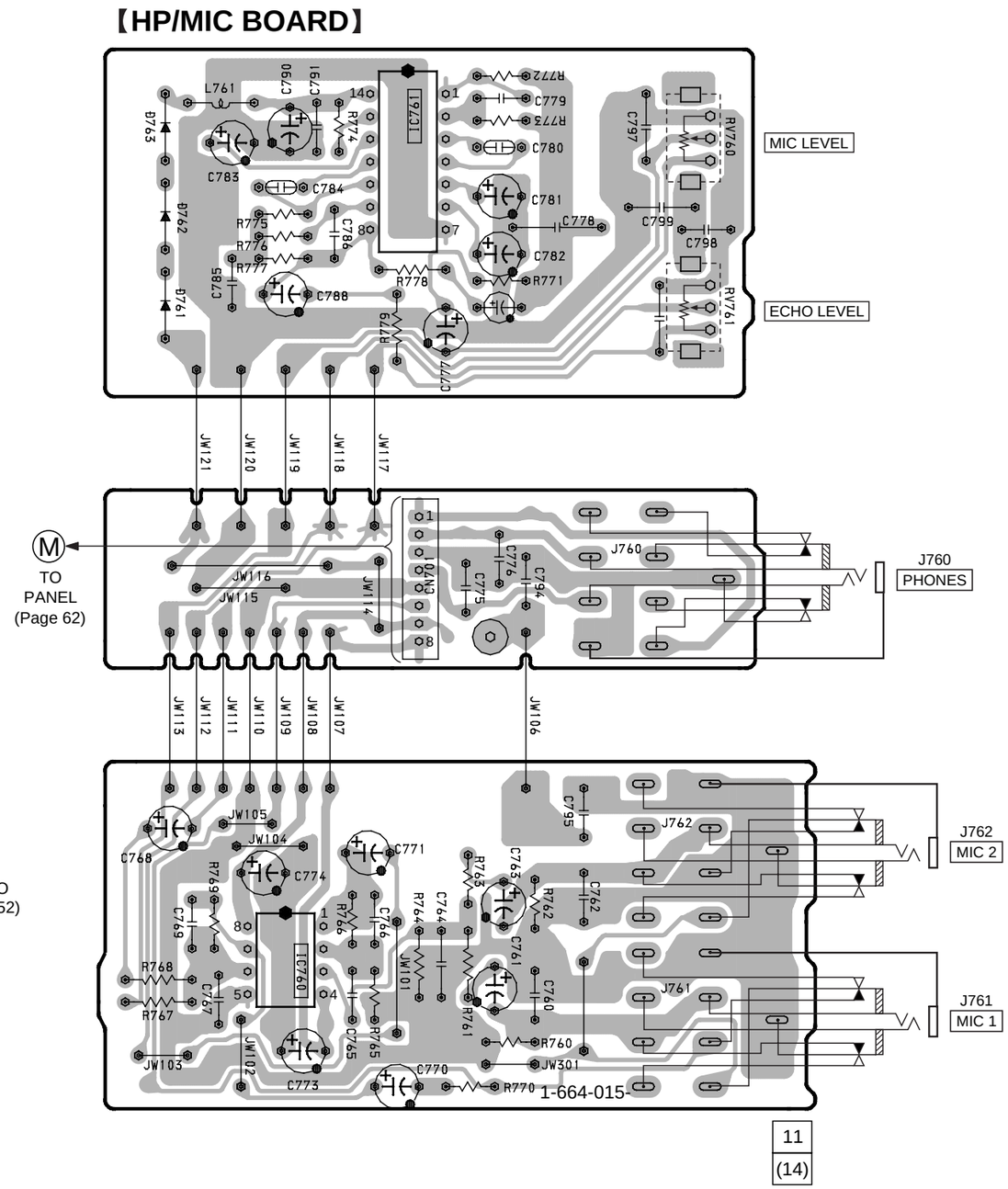
【VIDEO OUT BOARD】



【VIDEO POWER BOARD】



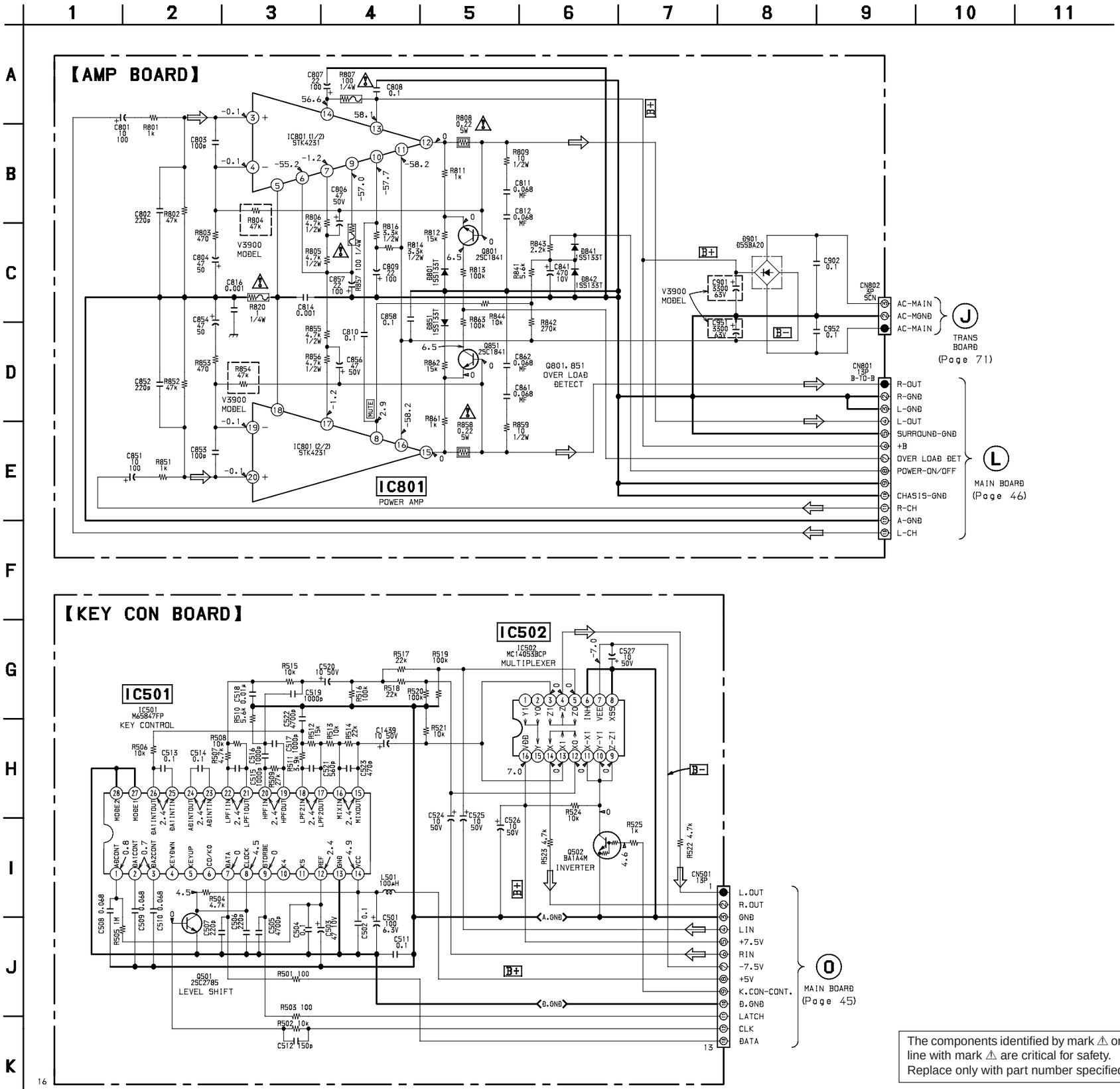
【HP/MIC BOARD】



• **Semiconductor Location**

Ref. No.	Location
D761	C-7
D762	B-7
D763	B-7
IC760	G-8
IC761	B-9
IC9001	H-3
IC9002	F-3
Q9001	G-4
Q9002	G-4
Q9003	F-4
Q9004	F-4

6-23. SCHEMATIC DIAGRAM – AMP/KEY CONTROL SECTION –

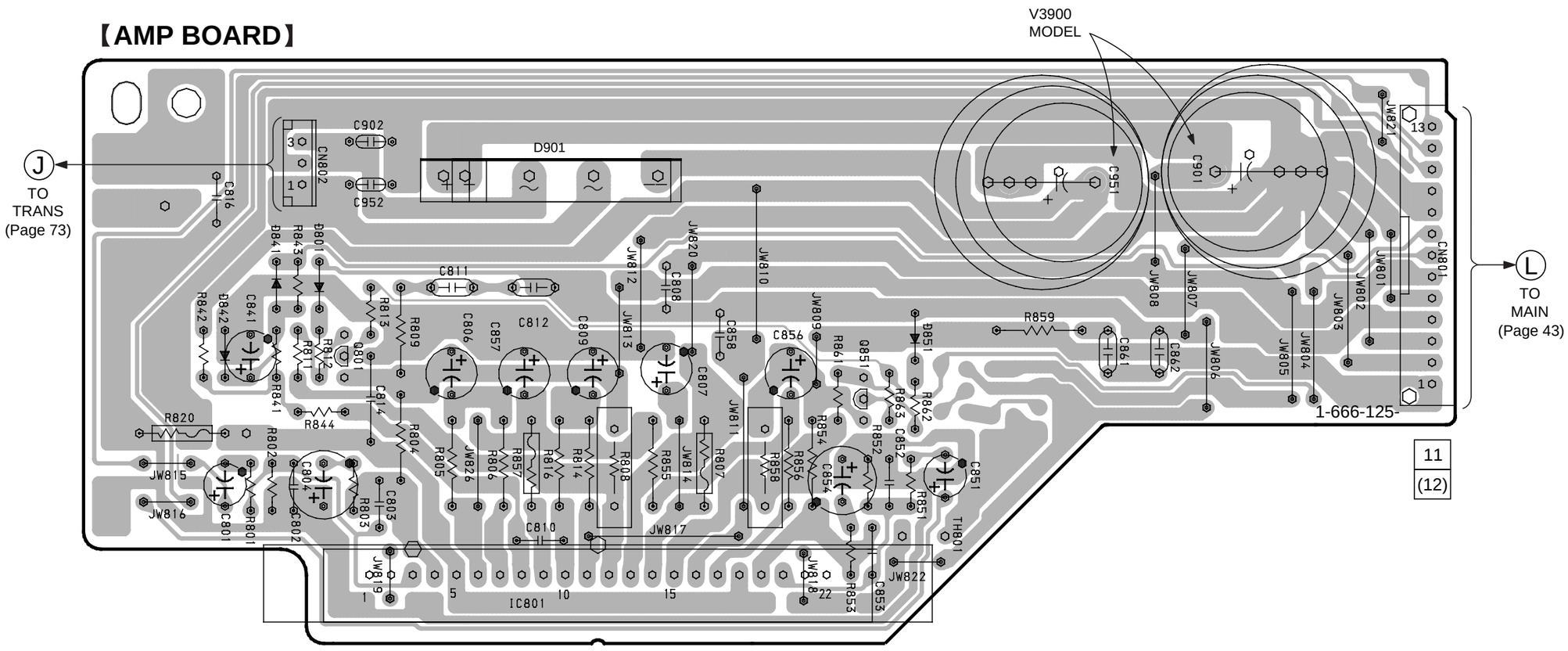


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

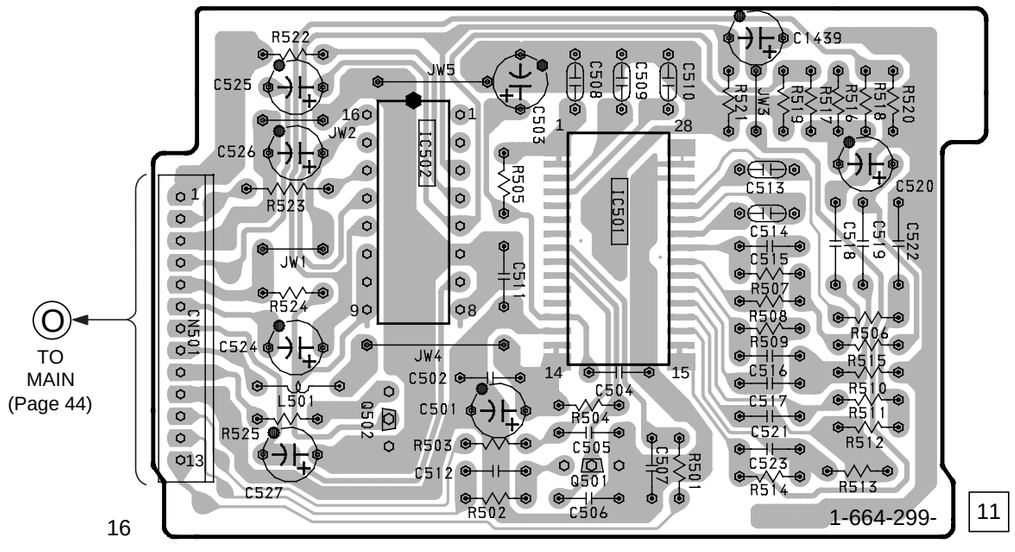
6-24. PRINTED WIRING BOARD – AMP/KEY CONTROL SECTION –

• See page 29 for Circuit Board Location.

【AMP BOARD】



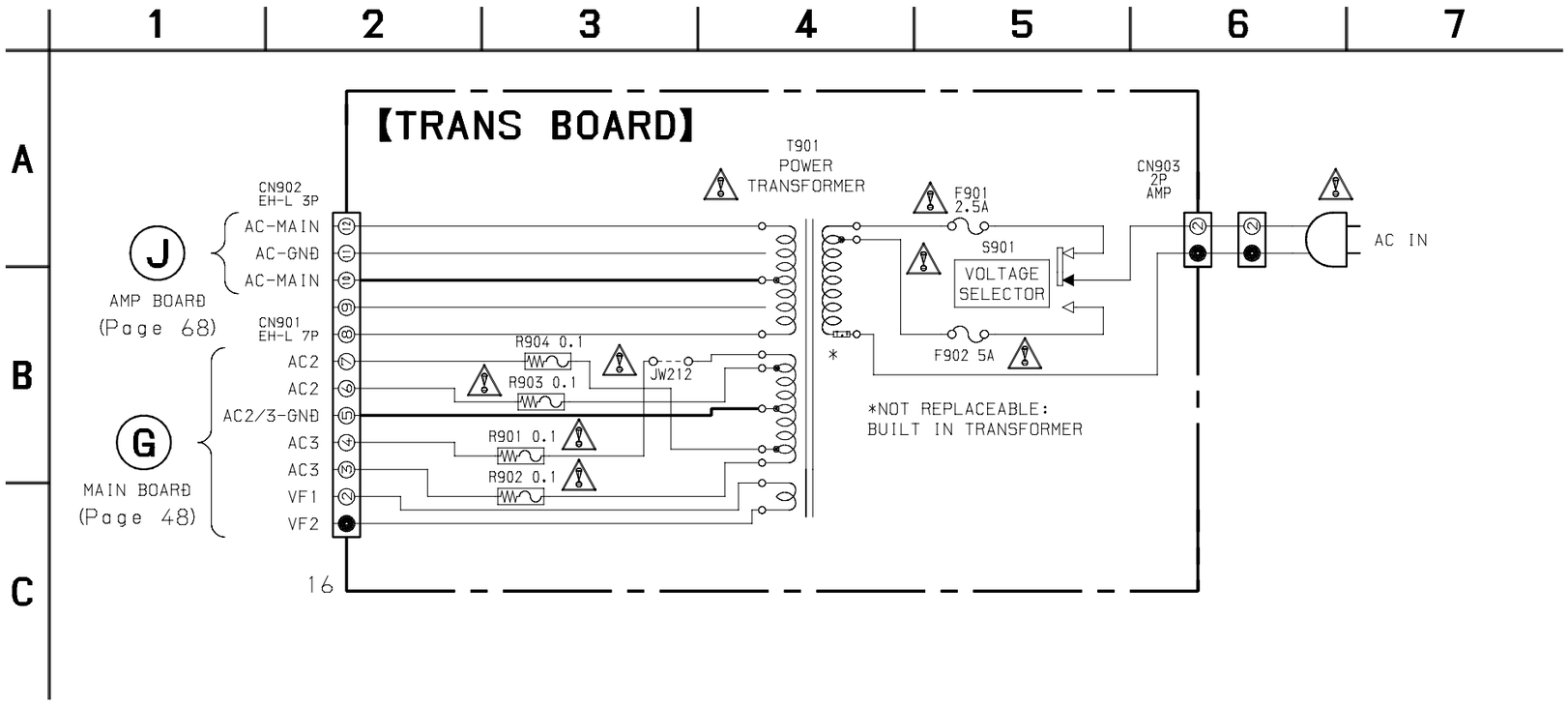
【KEY CON BOARD】



• **Semiconductor Location**

Ref. No.	Location
D801	C-3
D841	C-3
D842	C-3
D851	C-8
D901	B-5
IC501	H-7
IC502	G-6
IC801	E-5
Q501	I-7
Q502	I-6
Q801	C-4
Q851	D-7

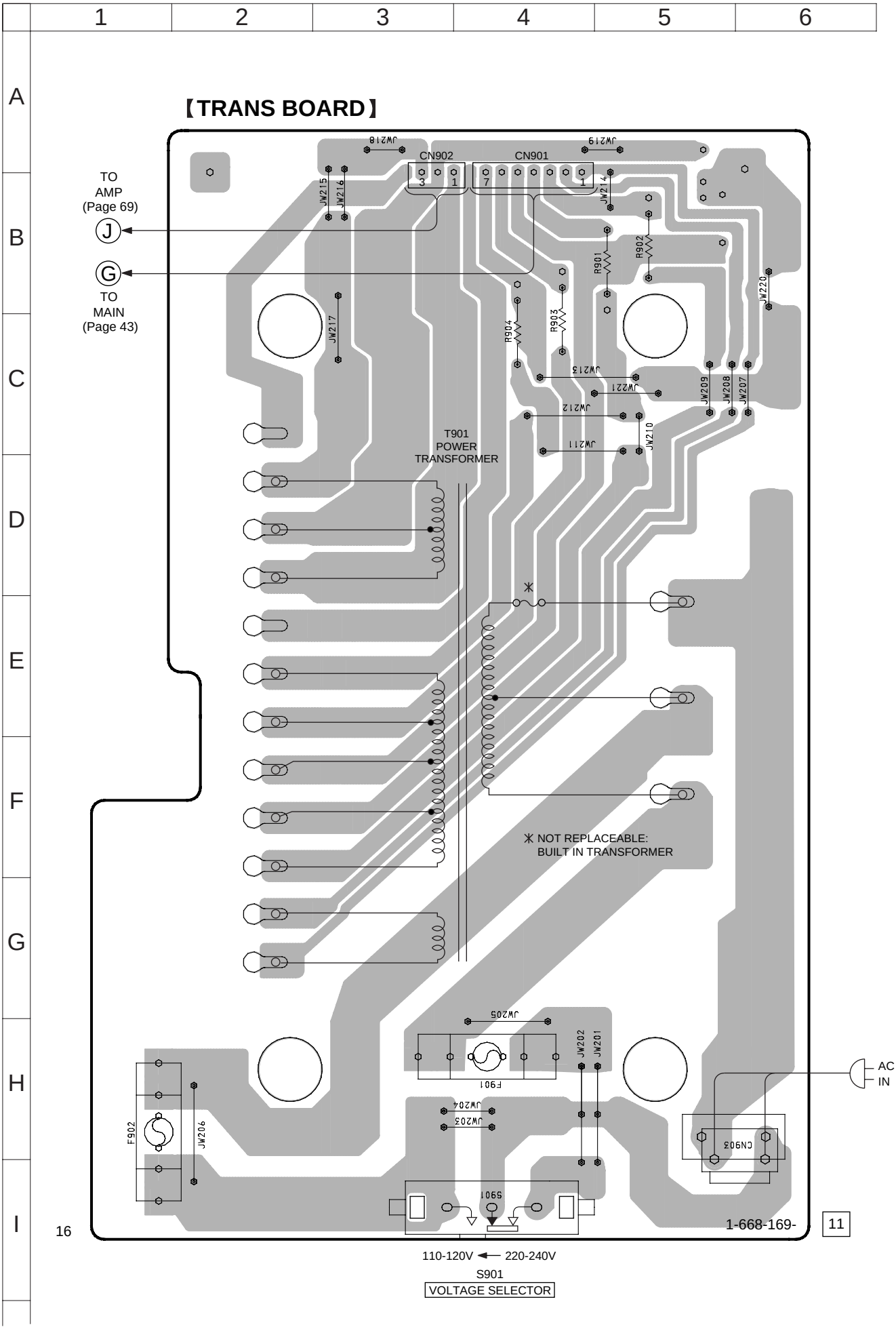
6-25. SCHEMATIC DIAGRAM – POWER SECTION –



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-26. PRINTED WIRING BOARD – POWER SECTION –

• See page 29 for Circuit Board Location.



6-27. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC301 μPD780016YGF-022-3BA (MASTER CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute control signal output terminal "L": mute on
2	DBFB-$\overline{H}$/L	O	DBFB normal/high selection signal output terminal "L": DBFB high, "H": DBFB low
3	427-LAT	O	Serial data latch pulse output to the electrical volume (IC201)
4	K-CON-LAT	O	Serial data latch pulse output to the key control (IC1401)
5	K-CON-ON	O	On/off selection signal output of the key control circuit "L": on
6	F-RELAY	O	Relay drive signal output for the main speaker (front speaker) "H": on
7	R-RELAY	O	Relay drive signal output terminal Not used (open)
8	PL-RELAY	O	Relay drive signal output terminal Not used (open)
9	TEST	—	Connected to ground
10	X2	O	Main system clock output terminal (5 MHz)
11	X1	I	Main system clock input terminal (5 MHz)
12	VDD	—	Power supply terminal (+5V)
13	XT2	O	Sub system clock output terminal (32.768 kHz)
14	XT1	I	Sub system clock input terminal (32.768 kHz)
15	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC302) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
16	(INT/IN)	—	Connected to ground
17	(INT/IN/OUT)	—	Connected to ground
18	SCOR	I	Subcode sync (S0+S1) detection signal input terminal Not used (fixed at "L")
19	SOFT-TEST	O	Output terminal for the software test (open)
20	AC-CUT	I	AC off detection signal input from the reset signal generator (IC302)
21	RDS-INT	I	Serial data reading clock signal input for the radio data system Not used (fixed at "L")
22	RDS-DATA	I	Serial data input for the radio data system Not used (open)
23	VDD	—	Power supply terminal (+5V)
24	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
25	ADJ	I	Setting terminal for the test Normally: "H"
26	A-SHUT	I	Shut off detection signal input from the deck-A reel pulse detector (Q1001)
27	B-SHUT	I	Shut off detection signal input from the deck-B reel pulse detector (Q1002)
28	B-HALF	I	Detection input from the deck-B half detect switch (S1007)
29	CLK-CHECK	I	Not used (fixed at "L")
30	SPEC-IN	I	Setting terminal for the version
31	ADJ2	I	Setting terminal for the test Normally: "L"
32	DEMO-MODE	I	Setting terminal for the demonstration H/L Fixed at "L"
33	AVSS	—	Ground terminal (for A/D conversion)
34	SQ-DATA-IN	I	Sub-code Q data input terminal Not used (fixed at "L")
35	—	—	Not used (open)
36	D.OUT ON/OFF	O	Power on/off selection signal output for the CD digital out optical "H": power on Not used (open)
37	SW-ON/OFF	O	Not used (open)
38	FUNC1	I	Setting terminal for the function 1 Fixed at "L"
39	FUNC2	I	Setting terminal for the function 2 Fixed at "L"
40	VSS	—	Ground terminal
41	VOL-LAT	O	Serial data latch pulse output terminal Not used (open)
42	PL-LAT	O	Serial data latch pulse output terminal Not used (open)
43	COM-DIN	I	Serial data input terminal Not used (fixed at "L")

Pin No.	Pin Name	I/O	Function
44	COM-DOUT	O	Serial data output to the electrical volume (IC201) and key control (IC501)
45	COM-CLK	O	Serial data transfer clock signal output to the electrical volume (IC201) and key control (IC501)
46	CD-POWER	O	Power on/off selection signal output for the CD circuit "H": power on
47	CD-DATA	O	Serial data output terminal Not used (open)
48	CD-CLK	O	Serial data transfer clock signal output terminal Not used (open)
49	MSM-CND	O	Command data output terminal Not used (open)
50	MSM-BUSY	I	Busy signal input terminal "L": busy Not used (fixed at "L")
51	MSM-LAT	O	Serial data latch pulse output terminal Not used (open)
52	MSM-NAR	O	NAR signal output terminal Not used (open)
53	MSM-CH	O	Channel select output terminal Not used (open)
54	INPUT-CHANGE	O	Input gain control signal output terminal "L": VIDEO, "H": MD Not used (open)
55	IIC-DATA	I/O	Communication data bus with the fluorescent indicator tube driver (IC601) and IIC interface controller (IC901)
56	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the fluorescent indicator tube driver (IC601) and IIC interface controller (IC901)
57	$\overline{\text{XRST}}$	O	Reset signal output to the IIC interface controller (IC901) "L": reset
58	XLT	O	Serial data latch pulse output terminal Not used (open)
59	FOCUS-SW	O	Focus control signal output terminal Not used (open)
60	TBL-L	O	Motor drive signal output to the disc tray turn motor driver (IC201)
61	TBL-R	O	Motor drive signal output to the disc tray turn motor driver (IC201)
62	TRAY-LED	O	LED on/off control signal output for the CD tray LED "H": LED on
63	LOAD-OUT	O	Motor drive signal output terminal Not used (open)
64	LOAD-IN	O	Motor drive signal output terminal Not used (open)
65	ST-CLK	O	PLL serial data transfer clock signal output to the FM/AM tuner unit
66	ST-DIN	I	PLL serial data input from the FM/AM tuner unit
67	ST-DOUT	O	PLL serial data output to the FM/AM tuner unit
68	ST-CE	O	PLL chip enable signal output to the FM/AM tuner unit
69	TUNED	I	Tuning detection signal input from the FM/AM tuner unit "L": TUNED
70	STEREO	I	FM stereo detection signal input from the FM/AM tuner unit "L": STEREO
71	VSS	—	Ground terminal
72	ST-MUTE	O	Tuner mute control signal output to the FM/AM tuner unit "L": mute on
73	SENS2	I	Internal status (SENSE) signal input terminal Not used (fixed at "L")
74	SENS	I	Internal status (SENSE) signal input terminal Not used (fixed at "L")
75	DISC-SENS	I	Disc status detection signal input terminal Not used (open)
76	T-SENS	I	Disc tray status detection signal input from the disc tray sensor (IC202)
77	UPSW	I	Detection input from the up switch (S201)
78	ENC3	I	Tray address detect signal input terminal Not used (open)
79	ENC2	I	
80	ENC1	I	
81	OUT-OPEN	I	Disc tray open/close detect signal input terminal "L": open, "H": close Not used (open)
82	CAP-$\overline{\text{H}}$/N	O	High/normal speed selection signal output of the capstan motor (M1) "L": high speed, "H": normal speed
83	A-TRG	O	Motor drive signal output to the trigger motor driver (IC1502)
84	B-TRG	O	Motor drive signal output to the trigger motor driver (IC1502)
85	TRG-LOW	O	Motor control signal output to the trigger motor driver (IC1502)
86	CAP-M-$\overline{\text{ON}}$/OFF	O	Capstan motor on/off control signal output terminal "L": capstan motor on

Pin No.	Pin Name	I/O	Function
87	PB-$\overline{A}$/B	O	Deck-A/B selection signal output to the HA12203NT (IC1501) "L": deck-A, "H": deck-B
88	EQ-H/$\overline{N}$	O	Normal/high speed selection signal output to the HA12203NT (IC1501) "L": normal speed, "H": high speed
89	BIAS	O	Recording bias on/off selection signal output to the HA12203NT (IC1501) "L": bias off, "H": bias on
90	REC-MUTE	O	Recording mute on/off selection signal output to the HA12203NT (IC1501) "L": mute on, "H": mute off
91	NR-ON/$\overline{OFF}$	O	Dolby NR on/off selection signal output to the HA12203NT (IC1501) "L": dolby off, "H": dolby on
92	R/P-PASS	O	Recording/playback/pass selection signal output to the HA12203NT (IC1501)
93	TC-MUTE	O	Line mute on/off selection signal output to the HA12203NT (IC1501) "L": mute off, "H": mute on
94	A-PLAY-SW	I	Detection input from the deck- A play detect switch (S1001) "H": deck-A play
95	B-PLAY-SW	I	Detection input from the deck- B play detect switch (S1002) "H": deck-B play
96	RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) "L": playback, "H": recording
97	A-HALF	I	Detection input from the deck-A cassette detect switch (S1004) "L": cassette in, "H": no cassette
98	POWER	O	On/off selection signal output of the main power supply "L": power on
99	SW-F-CON	O	Control signal output of the super woofer mode "H": music, "L": movie
100	STK-MUTE	O	Power amplifier on/off selection signal output terminal "L": on, "H": standby

• PANEL BOARD IC601 TMP87CH74F-6658 (FLUORESCENT INDICATOR TUBE DRIVER, KEY CONTROL, LED DRIVER)

Pin No.	Pin Name	I/O	Function
1	LED3	O	LED drive signal output terminal (SUPER WOOFER, ▮▮ (CD))
2	LED4	O	LED drive signal output terminal (▷ (CD))
3	LED5	O	LED drive signal output terminal (deck-B ◁ / ▷)
4	LED6	O	LED drive signal output terminal (▮▮ / ● REC (TAPE))
5	LED7	O	LED drive signal output terminal (EFFECT, ENTER)
6	LED8	O	LED drive signal output terminal (FILE 1/2)
7	VSS	—	Ground terminal
8	X-OUT	O	System clock output terminal (8 MHz)
9	X-IN	I	System clock input terminal (8 MHz)
10	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC302) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
11	LED9	O	LED drive signal output terminal Not used (connected to ground)
12	LED10	O	LED drive signal output terminal Not used (connected to ground)
13	TEST	I	Connected to ground
14	LED11	O	LED drive signal output terminal (FILE 3/4)
15	LED12	O	LED drive signal output terminal (FILE 5, P FILE)
16	LED13	O	LED drive signal output terminal (MENU 2/1)
17	LED14	O	LED drive signal output terminal (KEY CONTROL)
18	LED15	O	LED drive signal output terminal (decck-A ▷ / ◁)
19	LED16	O	LED drive signal output terminal (CD NON-STOP, VCD)
20	VOL-A	I	Rotary encoder pulse input from the S701 (VOLUME)
21	DOOR SW	I	CD door switch (S691 (⏏ OPEN)) input terminal
22	JOG-A	I	Jog dial pulse input from the S711 (⏮◁◁ AMS ▷▷⏭)
23	CLOCK	I/O	Communication data reading clock signal input or transfer clock signal output with the master controller (IC301) and IIC interface controller (IC901)
24	DATA	I/O	Communication data bus with the master controller (IC301) and IIC interface controller (IC901)
25	LED SELECT	O	LED selection signal output terminal
26	MODEL	I	Destination setting terminal
27	KEY-1	I	Key input terminal (A/D input) (S601 to 608, 651 to 659) ENTER/NEXT, TUNER MEMORY, TUNING MODE, TUNER/BAND, TUNING +/–, STEREO/MONO, FUNCTION, deck-B (▷ / ◁ / ▶▶ / ◀◀ / ■), ▮▮ , ● REC, H SPEED DUB, CD SYNC
28	KEY-2	I	Key input terminal (A/D input) (S609 to 615, 676 to 679, 681 to 686) GROOVE, GEQ ▲ / ◀ / ▶ / ▼ , SUPER WOOFER, SUPER W MODE, CD (▷ / ■ / ▮▮), DISC SKIP, CD (▶▶), REPEAT, PLAY MODE, 1/ALL DISCS, EDIT, CD (◀◀)
29	KEY-3	I	Key input terminal (A/D input) (S616 to 618, 641 to 647, 661 to 666, 670, 671) GEQ CONTROL, ENTER, EFFECT, deck-A (▷ / ◁ / ■ / ◀◀ / ▶▶), DOLBY NR, DIRECTION, DISC 1 to DISC 5, CD FLASH, PREV, NEXT
30	KEY-4	I	Key input terminal (A/D input) (S619 to 626, 628 to 633, 667 to 669) SPECTRUM ANALYZER, DISPLAY/DEMO, POWER. CLOCK SET, REC, DAILY 1/2, SLEEP, WAVE, KARAOKE PON/MPX, SURROUND, P FILE MEMORY, ♯, ♭, CD NON-STOP, CD LOOP, RETURN
31	LED17	O	LED drive signal output terminal (PBC, AUTO PBC)
32	L+R	I	Spectrum analyzer drive signal input terminal (for high frequency)

Pin No.	Pin Name	I/O	Function
33	SIRCS	I	Sircs input from the remote control receiver (IC602)
34	VOL-B	I	Rotary encoder pulse input from the S701 (VOLUME)
35	JOG-B	I	Jog dial pulse input from the S711 (⏮ AMS ⏭)
36	SPEANA-1	I	Spectrum analyzer drive signal input terminal (A/D input)
37	SPEANA-2	I	
38	VASS	—	Ground terminal
39	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
40	VDD	—	Power supply terminal (+5V)
41	—	—	Not used (open)
42 to 56	GR-1 to GR-15	O	Grid drive signal output to the fluorescent indicator tube (FL601)
57 to 77	SEG-1 to SEG-21	O	Segment drive signal output to the fluorescent indicator tube (FL601)
78	VKK	—	Power supply terminal (–30 V) (for fluorescent indicator tube drive)
79	LED1	O	LED drive signal output terminal (TUNER/BAND)
80	LED2	O	LED drive signal output terminal (ENTER/NEXT, GROOVE)

• VIDEO BOARD IC701 HD6433032SK15F (CD MECHANISM CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	CMD0	I/O	Two-way data bus with the IIC interface controller (IC901)
2	CMD1	I/O	
3	CMD2	I/O	
4	CMD3	I/O	
5	SACK	O	Data acknowledge output to the IIC interface controller (IC901)
6	QINT	I	Interrupt status input from the IIC interface controller (IC901)
7	VDAC-XLAT	O	Serial data latch pulse output to the video D/A converter (IC401)
8	DF-XLAT	O	Serial data latch pulse output to the D/A converter/digital filter (IC101)
9	P90/TXD	O	Transmit data output terminal Not used (open)
10	SUBQ	I	Sub-code Q data signal input from the CXD2545Q (IC101)
11	SQCK	O	Sub-code Q data transfer clock signal output to the CXD2545Q (IC101)
12	VSS	—	Ground terminal
13	D0	I/O	Two-way data bus with the S-RAM (IC751)
14	D1	I/O	
15	D2	I/O	
16	D3	I/O	
17	D4	I/O	
18	D5	I/O	
19	D6	I/O	
20	D7	I/O	
21	VCC	—	Power supply terminal (+5V)
22	A0	O	Address signal output to the MPEG audio/video decoder (IC201) and S-RAM (IC751)
23	A1	O	
24	A2	O	
25	A3	O	
26	A4	O	Address signal output to the S-RAM (IC751)
27	A5	O	
28	A6	O	
29	A7	O	
30	VSS	—	Ground terminal
31	A8	O	Address signal output to the S-RAM (IC751)
32	A9	O	
33	A10	O	
34	A11	O	
35	A12	O	
36	A13	O	Address signal output terminal Not used (open)
37	A14	O	
38	A15	O	
39	A16	O	
40	A17	O	Address signal output terminal Used for chip enable signal output to the S-RAM (IC751)
41	A18	O	
42	A19	O	Address signal output terminal Not used (open)
43	$\overline{\text{WAIT}}$	I	Wait signal input from the MPEG audio/video decoder (IC201)
44	MD0	I	Mode selection terminal (fixed at “H”)
45	MD1	I	Mode selection terminal (fixed at “L”)
46	Φ	O	System clock signal output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
47	$\overline{\text{STBY}}$	I	Hardware standby signal input terminal (fixed at “H”)
48	$\overline{\text{RESET}}$	I	Reset signal input from the IIC interface controller (IC901) “L”: reset
49	NMI	I	Non-maskable interrupt input terminal (fixed at “H”)
50	VSS	—	Ground terminal
51	EXTAL	O	System clock output terminal (10 MHz)
52	XTAL	I	System clock input terminal (10 MHz)
53	VCC	—	Power supply terminal (+5V)
54	$\overline{\text{AS}}$	O	Address strobe signal output to the MPEG audio/video decoder (IC201) Used for chip select signal output to the MPEG audio/video decoder (IC201)
55	$\overline{\text{RD}}$	O	Data reading strobe signal output to the S-RAM (IC751)
56	$\overline{\text{WR}}$	O	Data writing strobe signal output to the MPEG audio/video decoder (IC201) and S-RAM (IC751)
57	$\overline{\text{RESO}}$	O	Reset signal output terminal Not used (open)
58	AVSS	—	Ground terminal (for A/D conversion)
59	TEST0	I	Setting terminal for the test (color bar mode) Normally: “H”
60	TEST1	I	Setting terminal for the test (E-F balance mode) Normally: “H”
61	TE	I	Setting terminal for the test (E-F balance mode) Normally: “H”
62	SENS	I	Internal status (SENSE) signal input from the CXD2545Q (IC101)
63	DAC-SEL	I	Setting terminal of the D/A converter (fixed at “H”)
64	NPIN	I	Video system selection input from the system select switch (S9001) “L”: PAL, “H”: NTSC, Middle: AUTO
65	VSS	—	Ground terminal
66	$\overline{\text{VREQ}}$	I	Request signal input terminal Not used (fixed at “H”)
67	VREF	I	Reference voltage (+5V) input terminal
68	AVCC	—	Power supply terminal (for A/D conversion)
69	CHECK-LED	O	LED drive signal output for the self diagnosis indicator Normally: LED on (“H” output), Error: LED blinking
70	XHIRQ	I	Interruption request signal input from the MPEG audio/video decoder (IC201)
71	SCOR	I	Sub-code sync (S0+S1) detection signal input from the CXD2545Q (IC101)
72	MREQ	I	Communication request signal input from the IIC interface controller (IC901)
73	DATA	O	Serial data output to the CXD2545Q (IC101), D/A converter/digital filter (IC101), and video D/A converter (IC401)
74	AMUTE	O	Mute control signal output to the CXD2545Q (IC101) and D/A converter/digital filter (IC101)
75	LDON	O	Laser on/off selection signal output to the CXA1821M (IC103) “H”: laser on
76	XLT	O	Serial data latch pulse output to the CXD2545Q (IC101)
77	SCLK	O	Serial data transfer clock signal output to the CXD2545Q (IC101)
78	CLK	O	Serial data transfer clock signal output to the CXD2545Q (IC101), D/A converter/digital filter (IC101), and video D/A converter (IC401)
79	NR-SEL	I	Setting terminal of the video noise reduction (fixed at “H”)
80	—	—	Not used (open)

• VIDEO BOARD IC901 μPD780016YGF-020-3BA (IIC INTERFACE CONTROLLER)

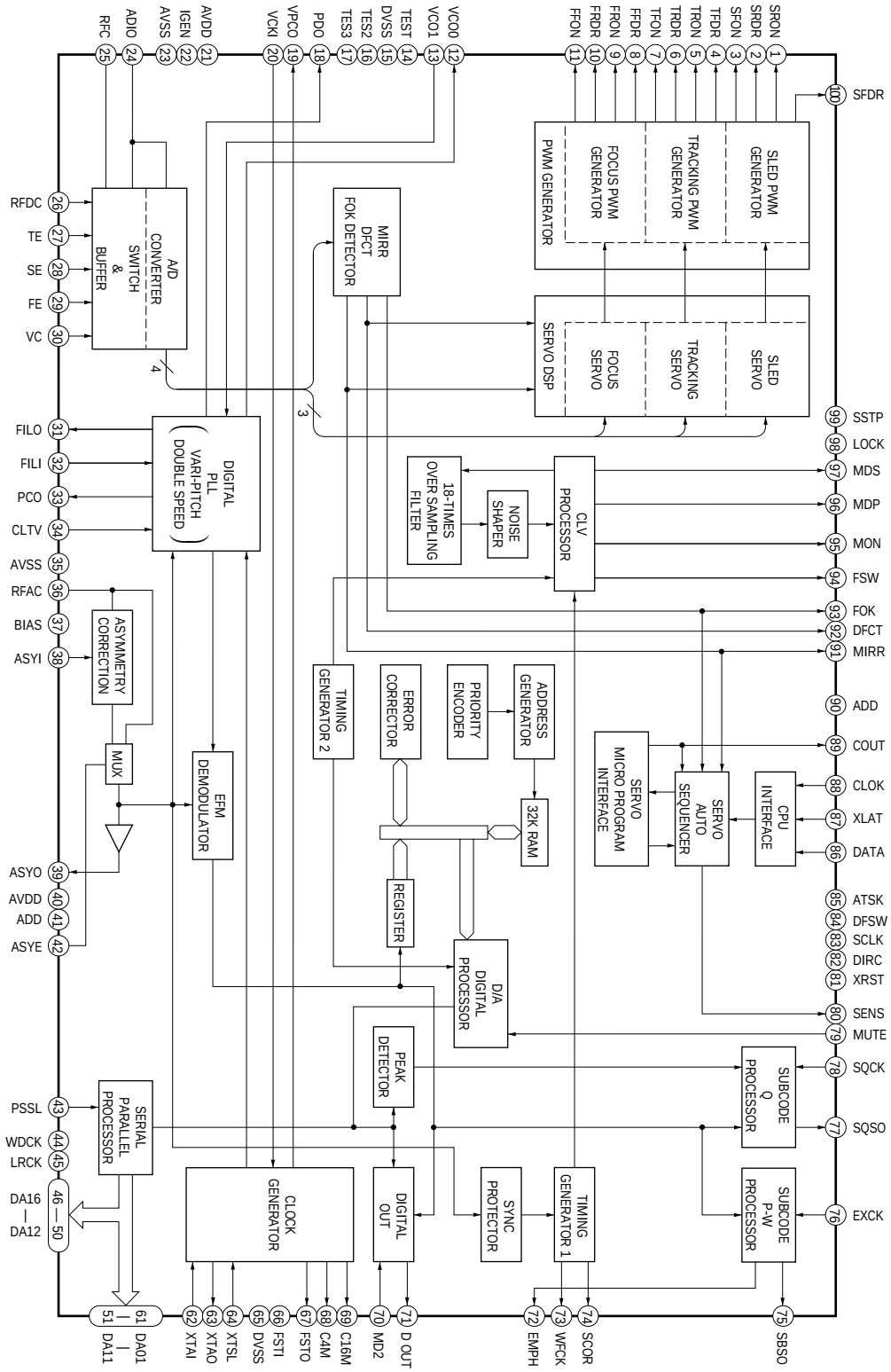
Pin No.	Pin Name	I/O	Function
1 to 8	P80 to P87	I	Not used (fixed at "L")
9	TEST	I	Test terminal (fixed at "L")
10	X2	O	Main system clock output terminal (5 MHz)
11	X1	I	Main system clock input terminal (5 MHz)
12	VDD	—	Power supply terminal (+5V)
13	XT2	O	Sub system clock output terminal Not used (open)
14	XT1	I	Sub system clock input terminal Not used (fixed at "H")
15	$\overline{\text{RESET}}$	I	Reset signal input from the master controller (IC301) "L": reset
16	P00	I	Inputs the boundary point control (phase fix) for CXD1854Q (IC301) (fixed at "L")
17	P01	I	Inputs the boundary point control (phase switch) for CXD1854Q (IC301) (fixed at "L")
18	QINT	I	Interrupt status input from the CD mechanism controller (IC701)
19 to 22	P03 to P06	I	Inputs the boundary point control (phase 0 to 3) for CXD1854Q (IC301) (fixed at "L")
23	VDD	—	Power supply terminal (+5V)
24	AVDD	—	Power supply terminal (+5V) (for A/D conversion)
25 to 32	P10 to P17	I	Not used (fixed at "L")
33	AVSS	—	Ground terminal (for A/D conversion)
34	CMD0	I/O	Two-way data bus with the mechanism controller (IC701)
35	CMD1	I/O	
36	CMD2	I/O	
37	CMD3	I/O	
38	P24	I	Not used (fixed at "L")
39	P25	I	Not used (fixed at "L")
40	VSS	—	Ground terminal
41	P26	I	Not used (fixed at "L")
42	P27	I	Not used (fixed at "L")
43	MREQ	O	Communication request signal output to the CD mechanism controller (IC701)
44	SACK	I	Data acknowledge input from the CD mechanism controller (IC701)
45	CDGM	I	Not used (fixed at "L")
46	P93	I	Not used (fixed at "L")
47	MDATA	O	Serial data output to the on screen display controller (IC271) and video noise reduction (IC301)
48	MCLK	O	Serial data transfer clock signal output to the on screen display controller (IC271) and video noise reduction (IC301)
49	OS-XLAT	O	Serial data latch pulse output to the on screen display controller (IC271)
50	G-XLAT	O	Serial data latch pulse output terminal Not used (open)
51	$\overline{\text{G-XRST}}$	O	Reset signal output terminal Not used (open)
52	$\overline{\text{CD-XRST}}$	O	Reset signal output to the CD/video CD circuit "L": reset
53	CDPOW	O	Power on/off selection signal output terminal Not used (open)
54	DOUT	O	Digital output terminal Not used (open)
55	IIC-DATA	I/O	Communication data bus with the master controller (IC301) and fluorescent indicator tube driver (IC601)
56	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the master controller (IC301) and fluorescent indicator tube driver (IC601)
57 to 64	P40 to P47	I	Not used (fixed at "L")
65	NRON	O	Video noise reduction system on/off selection signal output terminal Not used (open)
66	LEVEL0	O	Level control signal output terminal Not used (open)
67	LEVEL1	O	Level control signal output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
68	NR-XCS	O	Chip select signal output to the video noise reduction (IC301)
69	P54	I	Not used (fixed at “L”)
70	P55	I	Not used (fixed at “L”)
71	VSS	—	Ground terminal
72	P56	I	Not used (fixed at “L”)
73	P57	I	Not used (fixed at “L”)
74 to 81	P60 to P67	I	Not used (fixed at “L”)
82 to 85	P100 to P103	I	Not used (fixed at “L”)
86 to 93	P30 to P37	I	Not used (fixed at “L”)
94 to 100	P150 to P156	I	Not used (fixed at “L”)

6-28. IC BLOCK DIAGRAMS

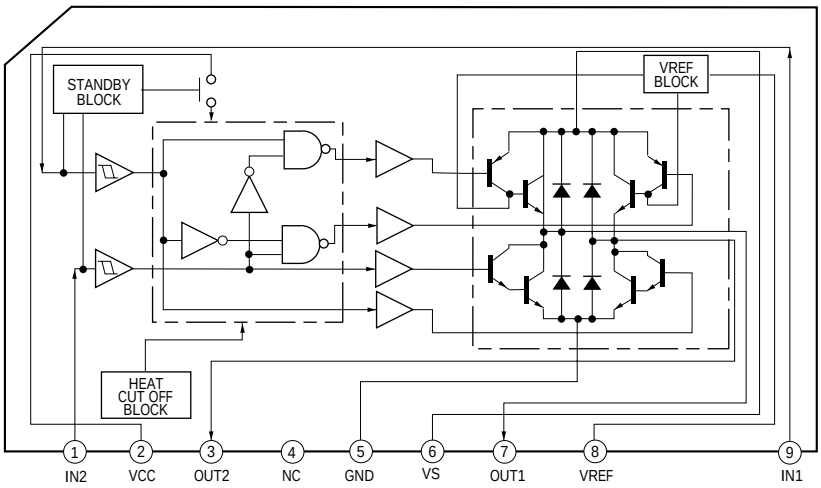
– BD Section –

IC101 CXD2545Q



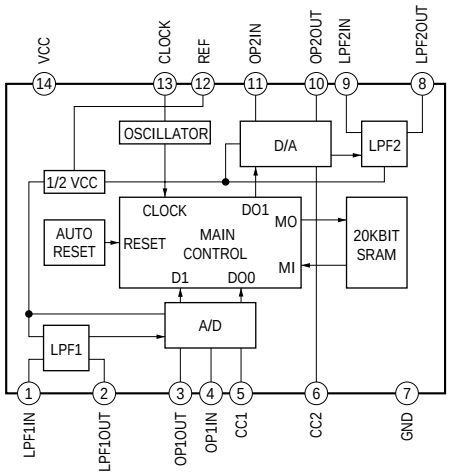
– CD MOTOR Section –

IC201 TA8409S



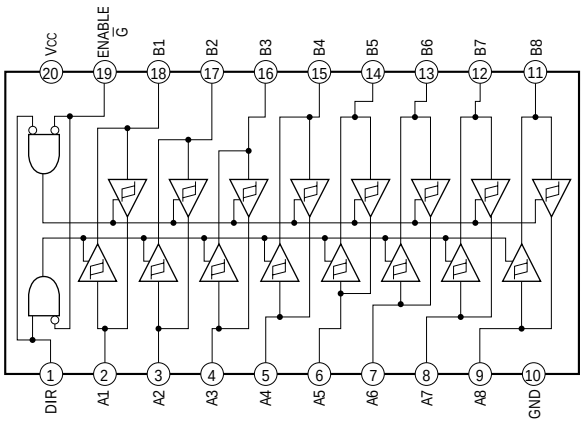
– HP/MIC Section –

IC761 M65850P



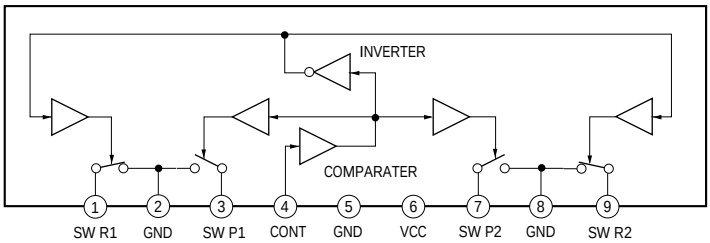
– VIDEO Section –

IC501 SN74HC245ANS



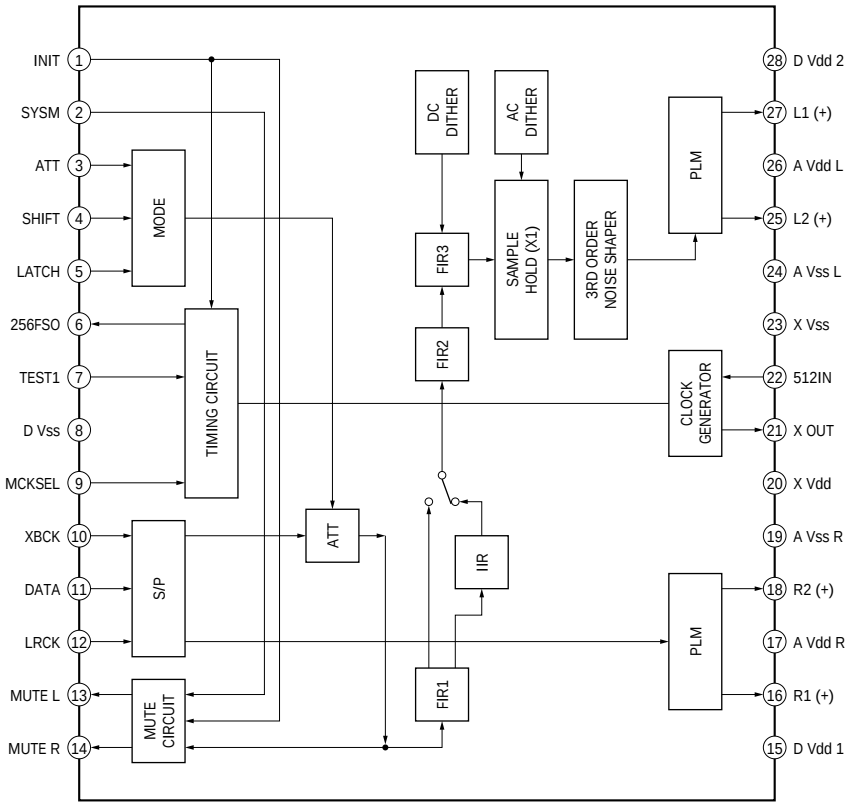
– AUDIO Section –

IC602 uPC1330HA

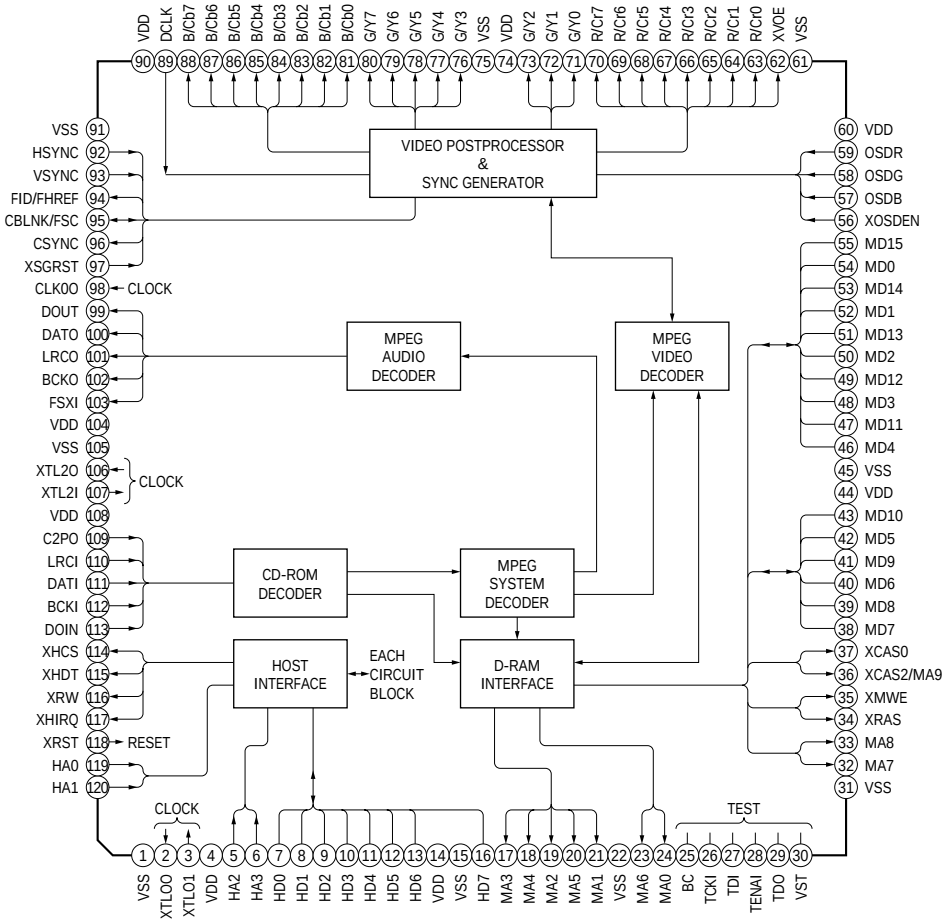


– VIDEO Section –

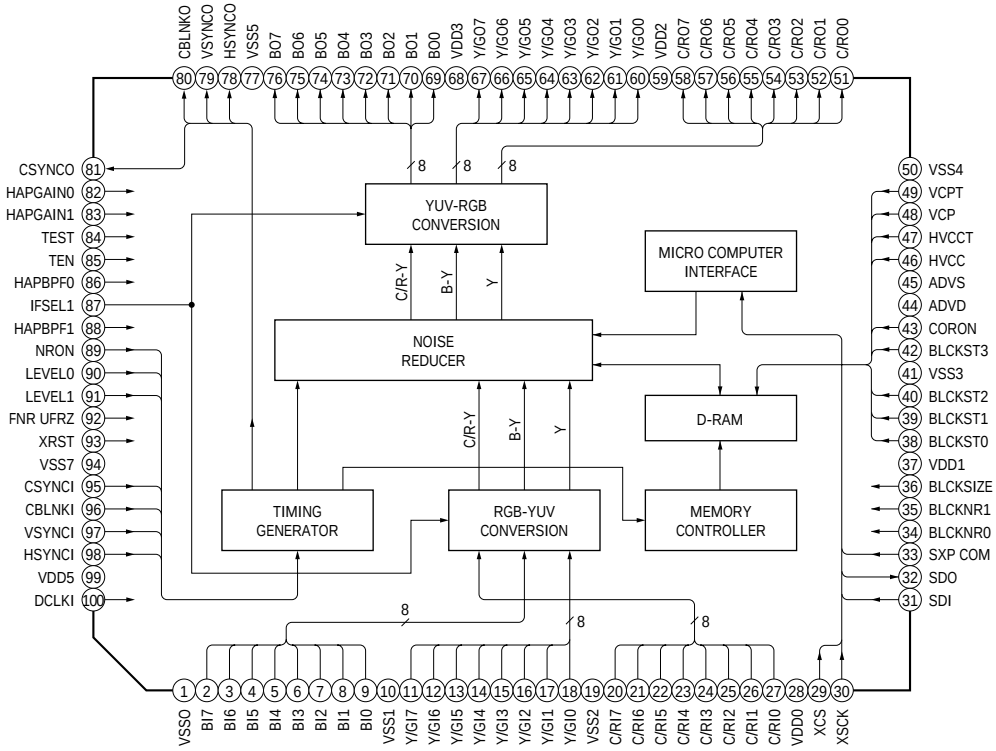
IC101 CXD8567AM



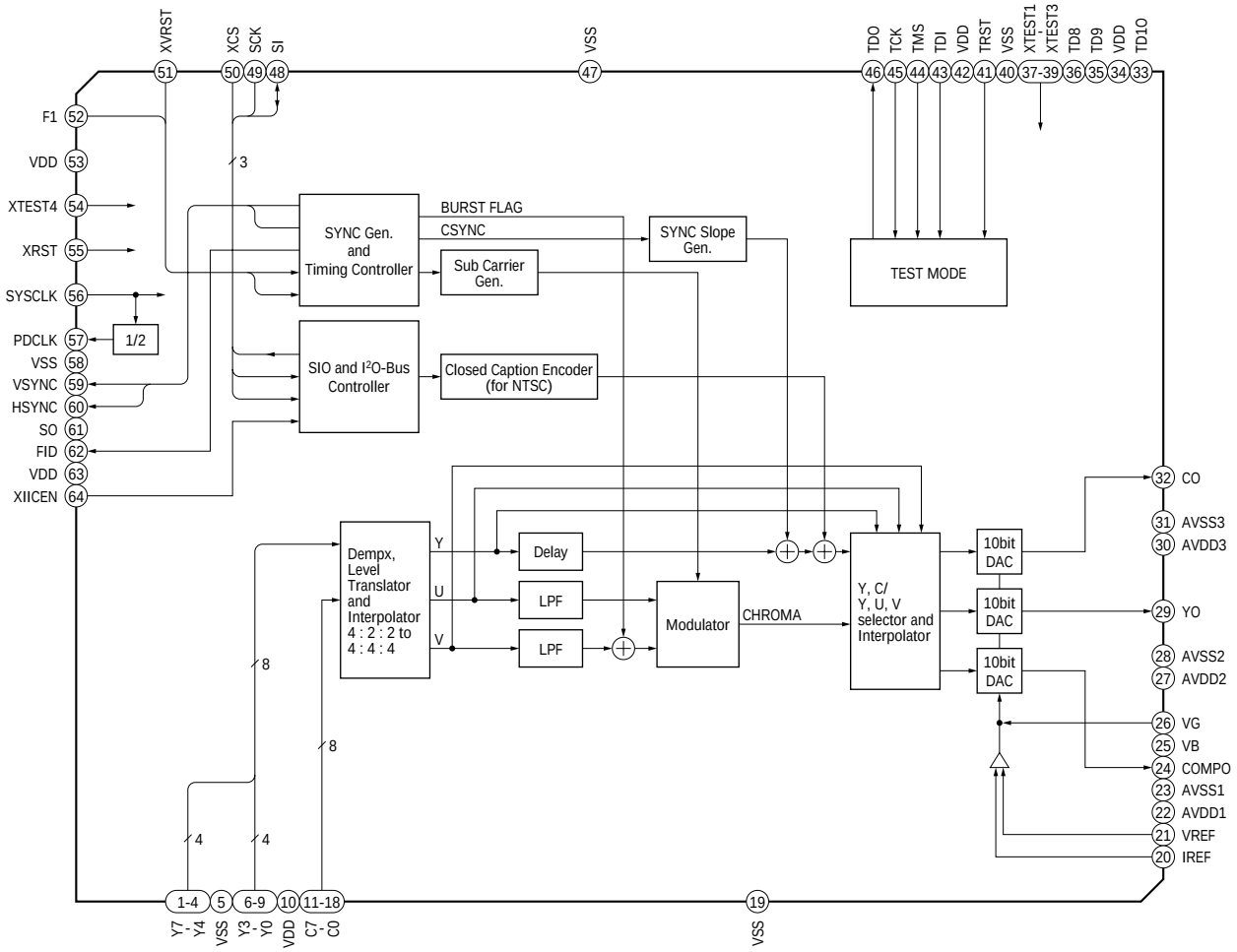
IC201 CXD1856Q



IC301 CXD1854Q

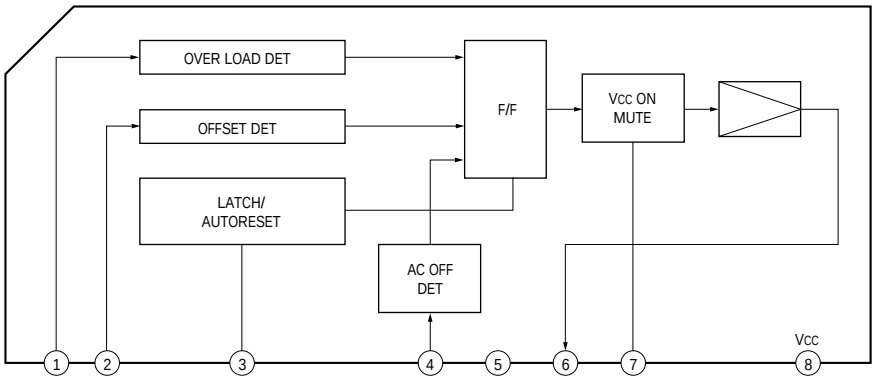


IC401 CXD1913Q

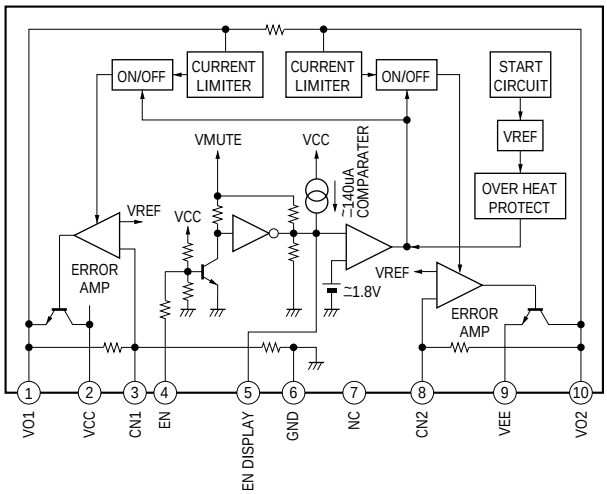


– MAIN Section –

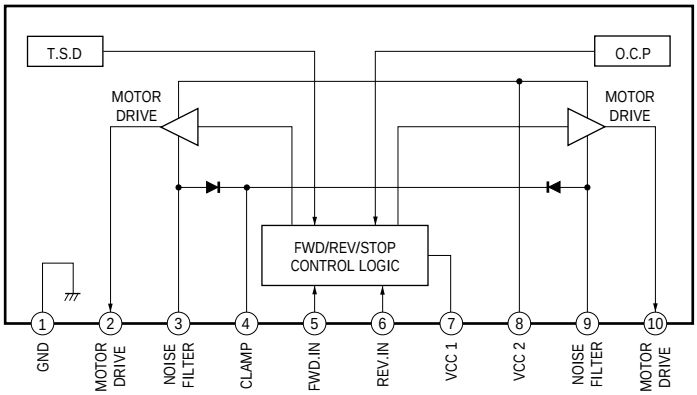
IC281 uPC1237HA



IC901 LA5617



IC1502 LB1641



SECTION 7
EXPLODED VIEWS

NOTE:

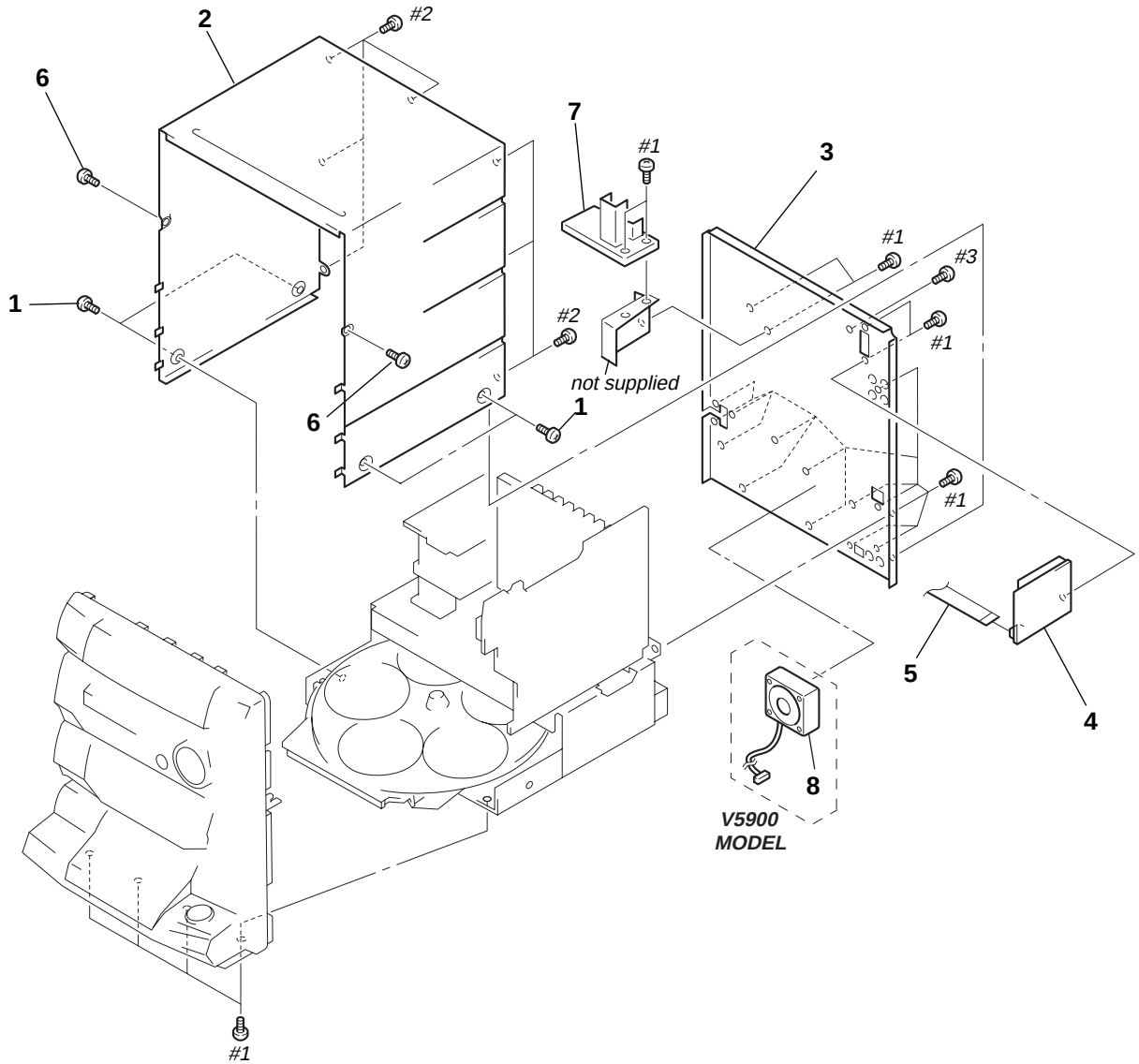
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

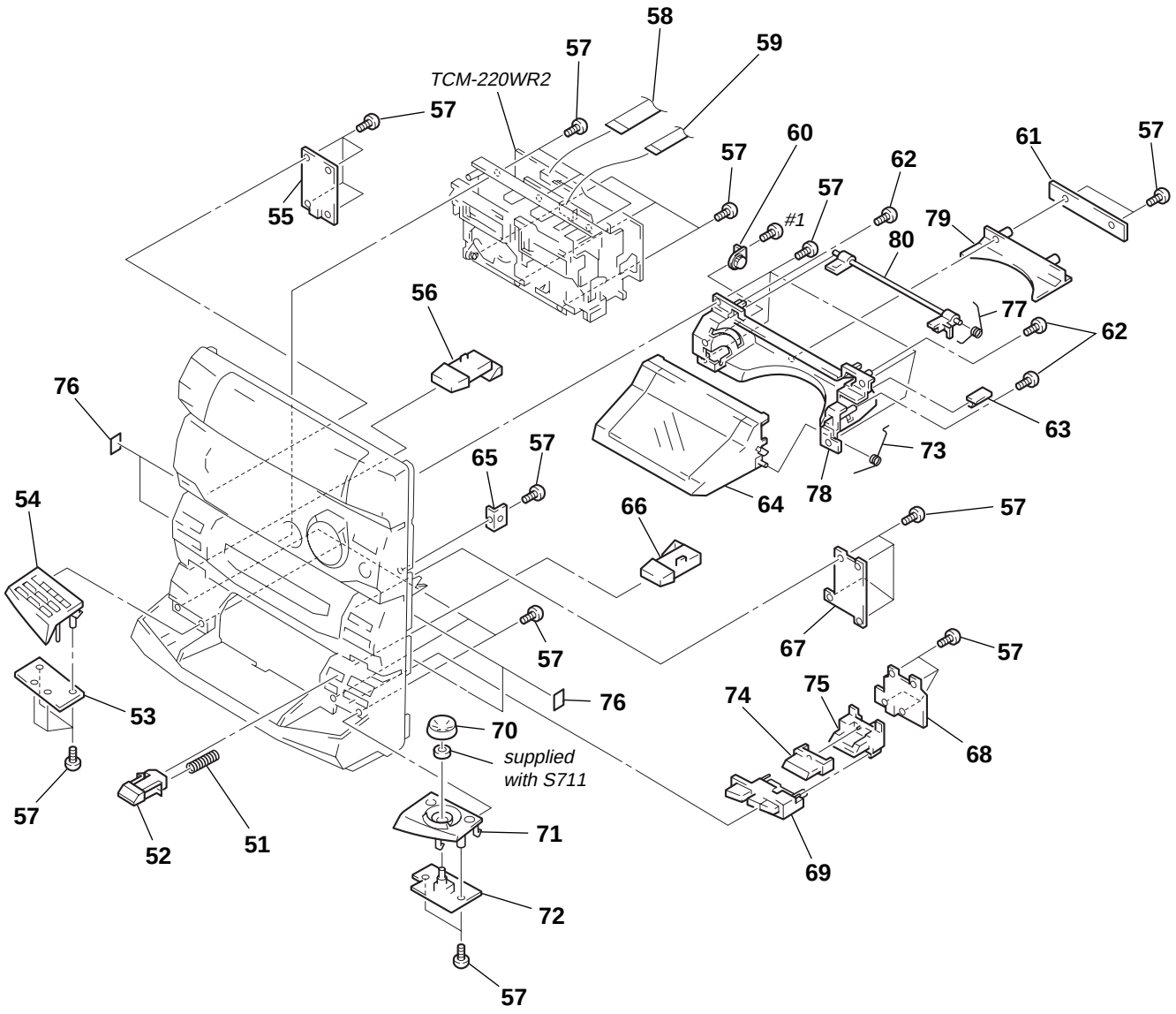
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE, REAR PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	4-951-620-01	SCREW (2.6X8), +BVTP	
* 2	4-987-052-91	CASE	
* 3	4-900-071-01	PANEL, BACK (V3900:SP,MY)	
* 3	4-900-071-11	PANEL, BACK (V3900:IA)	
* 3	4-900-072-01	PANEL, BACK (V5900)	
4	1-233-545-11	ENCAPSULATED COMPONENT	
5	1-769-974-11	WIRE (FLAT TYPE) (13 CORE)	
6	3-363-099-01	SCREW (CASE 3 TP2)	
* 7	1-666-126-11	VIDEO POWER BOARD	
8	1-698-792-11	FAN, DC (V5900)	

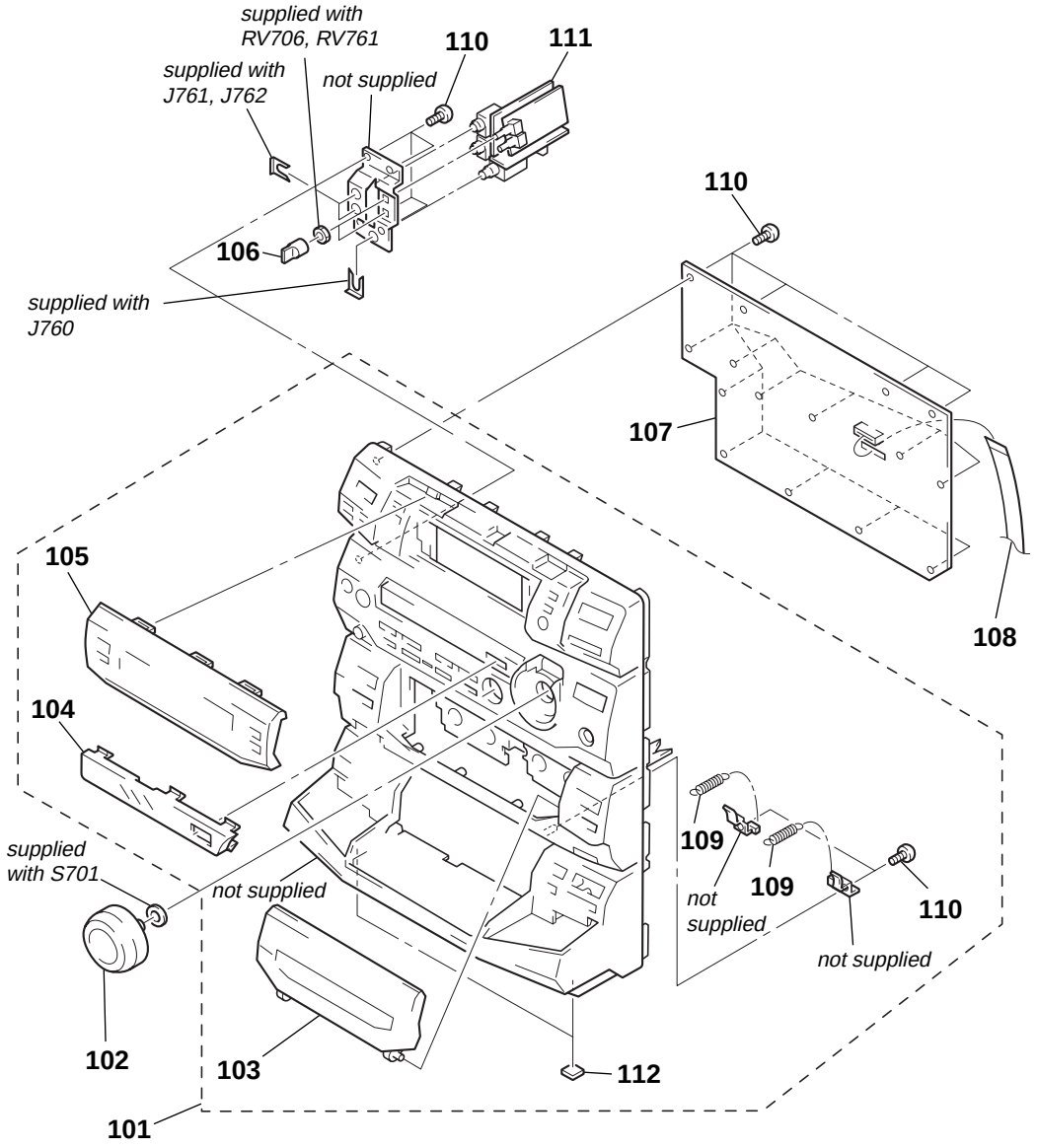
7-2. FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remarks
51	4-987-995-01	SPRING (CD EJECT), COMPRESSION	
52	4-987-001-11	BUTTON (EJECT CD)	
* 53	1-669-630-11	CD-A SW BOARD	
54	X-4949-888-1	PANEL (A) SUB ASSY	
* 55	1-664-012-11	TC-A SW BOARD	
56	4-986-999-11	BUTTON (EJECT A)	
57	4-951-620-01	SCREW (2.6X8), +BVTP	
58	1-773-161-11	WIRE (FLAT TYPE) (21 CORE)	
59	1-769-949-11	WIRE (FLAT TYPE) (11 CORE)	
60	3-354-963-01	DAMPER	
* 61	1-664-017-11	LED BOARD	
62	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
* 63	1-664-016-11	DOOR SW BOARD	
64	X-4949-898-1	LID ASSY, DISK	
* 65	4-987-933-01	BRACKET (TA)	

Ref. No.	Part No.	Description	Remarks
66	4-987-000-11	BUTTON (EJECT B)	
* 67	1-664-013-11	TC-B SW BOARD	
* 68	1-669-631-11	CD-B1 SW BOARD	
69	X-4949-279-1	BUTTON (CD STOP) ASSY	
70	4-987-037-11	KNOB (JOG)	
71	X-4949-274-1	PANEL (B) SUB ASSY	
* 72	1-669-632-11	CD-B2 SW BOARD	
73	4-987-997-01	SPRING (CD.LID), TORSION	
74	4-987-014-01	INDICATOR (CD)	
75	4-987-002-11	BUTTON (CD.PLAY)	
76	3-568-749-00	CUSHION, ECM	
77	4-987-998-01	SPRING (LOCK SHAFT), TORSION	
78	4-987-040-02	COVER (CD)	
79	4-987-929-01	INDICATOR (LID)	
80	X-4947-904-2	SHAFT ASSY, LOCK	

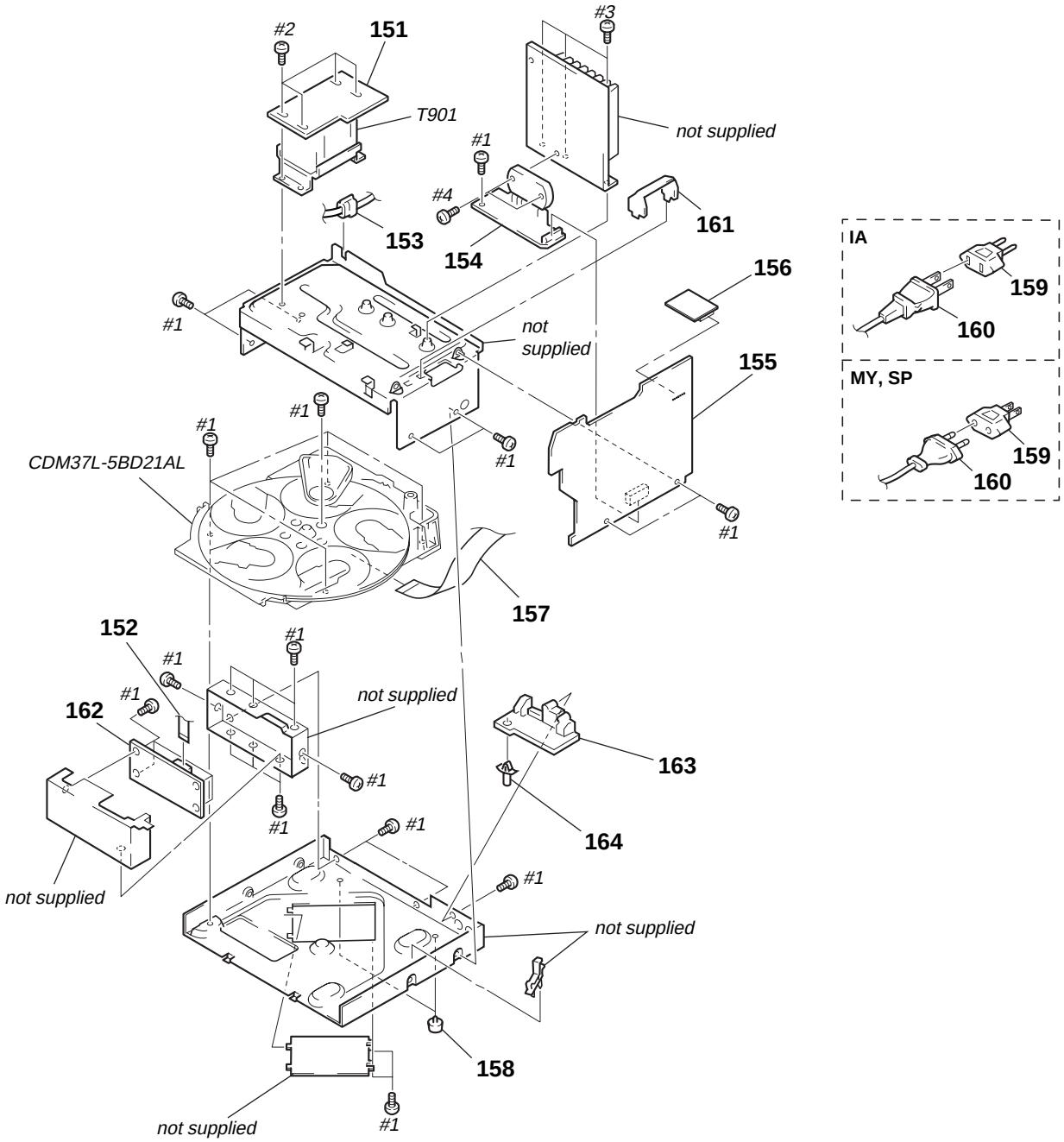
7-3. FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remarks
101	X-4949-887-1	PANEL ASSY (V3900)	
101	X-4949-890-1	PANEL ASSY (V5900)	
102	4-987-036-11	KNOB (VOL)	
103	X-4949-271-1	LID ASSY, CASSETTE	
104	4-987-032-01	DISPLAY (TA)	
105	4-987-028-11	DISPLAY (ST)	
106	4-973-644-71	KNOB (MIC)	

Ref. No.	Part No.	Description	Remarks
110	4-951-620-01	SCREW (2.6X8), +BVTP	
* 111	A-4403-916-A	HP/MIC BOARD, COMPLETE	
* 107	A-4407-930-A	PANEL BOARD, COMPLETE (V5900)	
* 107	A-4407-959-A	PANEL BOARD, COMPLETE (V3900)	
108	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
109	4-987-996-01	SPRING (TC LID), TENSION	
112	4-948-236-21	CUSHION (107)	

7-4. CHASSIS SECTION

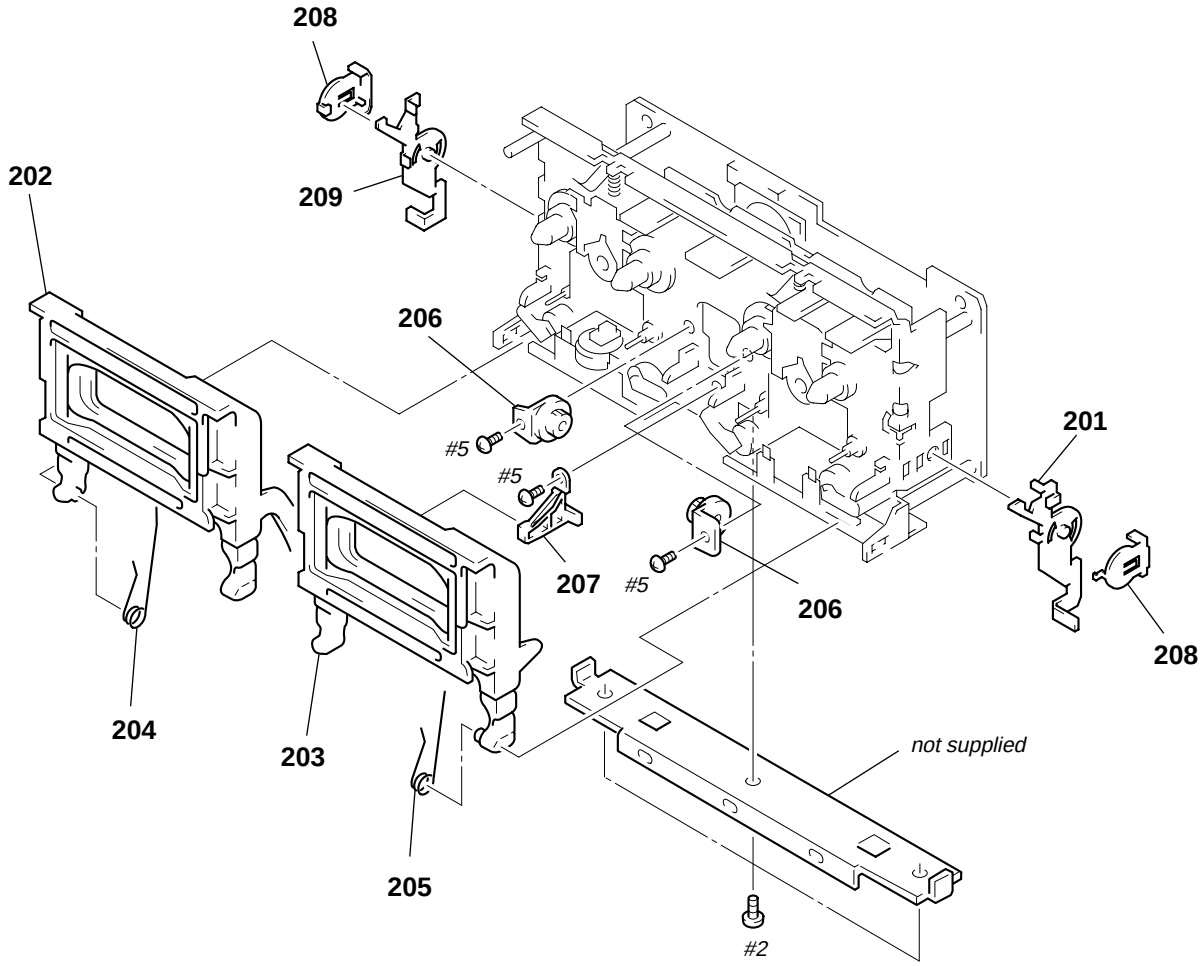


Ref. No.	Part No.	Description	Remarks
* 151	1-668-169-11	TRANS BOARD	
152	1-782-562-11	WIRE (FLAT TYPE) (13 CORE)	
153	3-703-244-00	BUSHING (FBS001), CORD (SP,MY)	
153	4-966-266-01	BUSHING (S) (FBS002), CORD (IA)	
* 154	A-4407-925-A	AMP BOARD, COMPLETE (V5900)	
* 154	A-4407-948-A	AMP BOARD, COMPLETE (V3900)	
* 155	A-4407-927-A	MAIN BOARD, COMPLETE (V5900)	
* 155	A-4407-950-A	MAIN BOARD, COMPLETE (V3900)	
* 156	A-4403-922-A	KEY-CON BOARD, COMPLETE	
157	1-782-563-11	WIRE (FLAT TYPE) (29 CORE)	
158	X-4941-228-1	FOOT (F22125H-M)	

Ref. No.	Part No.	Description	Remarks
⚠159	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)	
⚠159	1-569-008-21	ADAPTOR, CONVERSION 2P (SP,MY)	
⚠160	1-558-943-41	CORD, POWER (IA)	
⚠160	1-575-651-21	CORD, POWER (SP,MY)	
* 161	4-988-533-01	HOLDER, PWB	
* 162	A-4407-923-A	VIDEO BOARD, COMPLETE	
* 163	1-665-406-11	VIDEO OUT BOARD	
* 164	4-944-316-01	HOLDER, PC BOARD	
⚠T901	1-431-635-11	TRANSFORMER, POWER (V3900)	
⚠T901	1-431-637-11	TRANSFORMER, POWER (V5900)	

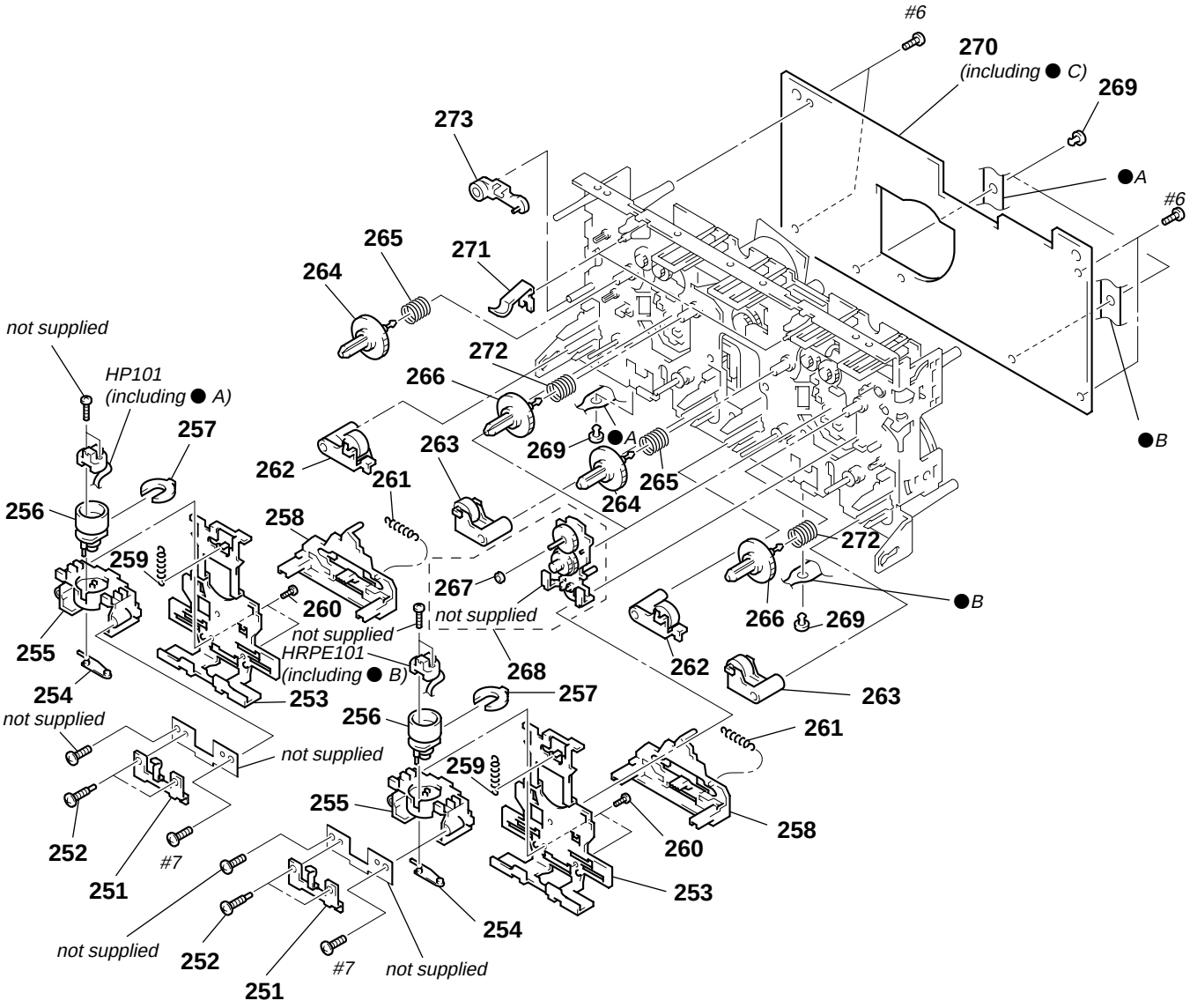
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

7-5. TAPE MECHANISM DECK SECTION-1 (TCM-220WR2)



Ref. No.	Part No.	Description	Remarks
201	3-354-954-01	LEVER (LOCK LEVER R)	
202	X-4947-943-1	HOLDER (L) ASSY, CASSETTE	
203	X-4947-944-1	HOLDER (R) ASSY, CASSETTE	
204	4-959-231-11	SPRING (L), TORSION	
205	4-959-232-11	SPRING (R), TORSION	
206	3-354-963-01	DAMPER	
* 207	4-980-439-01	FULCRUM, HOLDER	
208	3-354-957-01	JOINT (LOCK LEVER)	
209	3-354-953-01	LEVER (LOCK LEVER L)	

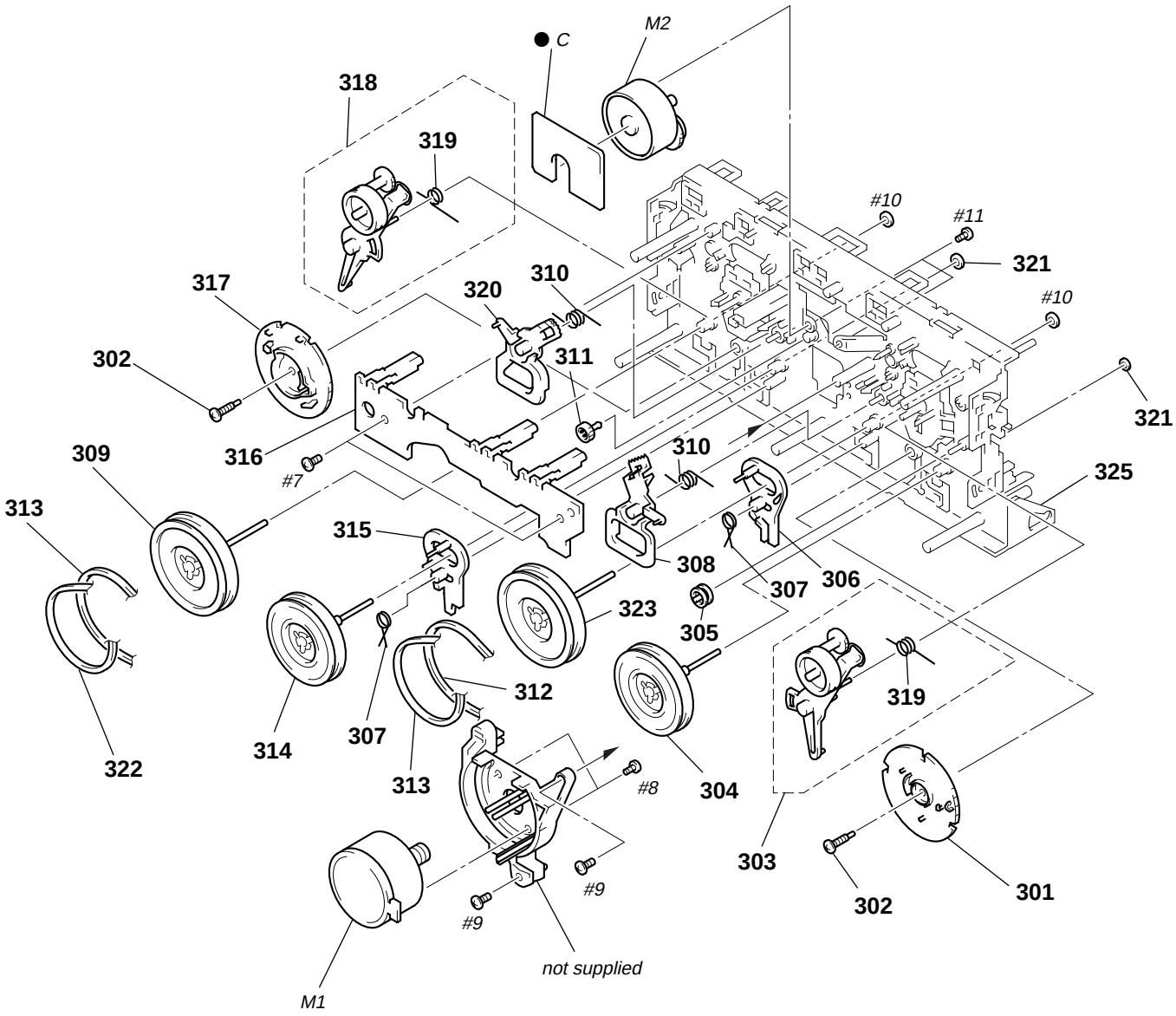
7-6. TAPE MECHANISM DECK SECTION-2 (TCM-220WR2)



Ref. No.	Part No.	Description	Remarks
251	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT	
252	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT	
253	X-3373-113-1	SLIDER (HEAD) ASSY	
254	3-908-556-01	SPRING, HEAD TOGGLE	
255	3-908-558-02	FITTING BLOCK, HEAD	
256	3-908-557-02	ROTARY BLOCK, HEAD	
* 257	3-908-559-01	STOPPER, AZIMUTH	
258	3-908-555-01	SLIDER (REV SLIDER)	
259	3-917-143-11	SPRING, TENSION	
260	3-388-848-01	SCREW (P2X6) (B TIGHT)	
261	3-939-371-01	SPRING (1), TENSION	
262	X-3369-909-1	PINCH LEVER (REV) ASSY	
263	X-3369-908-1	PINCH LEVER (FWD) ASSY	
264	3-908-613-01	GEAR (S), REEL	
265	3-917-141-01	SPRING, COMPRESSION	
266	X-3371-305-1	REEL (T) ASSY	
267	3-669-465-01	WASHER (1.5), STOPPER	
268	X-3370-173-1	TU ASSY	
269	3-939-862-01	CLIP	
* 270	A-2007-131-A	AUDIO BOARD, COMPLETE	
271	3-930-972-01	DETENT, HALF	
272	3-917-142-01	SPRING, COMPRESSION	
273	3-938-863-01	STOPPER	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
HRPE1011	-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	

7-7. TAPE MECHANISM DECK SECTION-3 (TCM-220WR2)

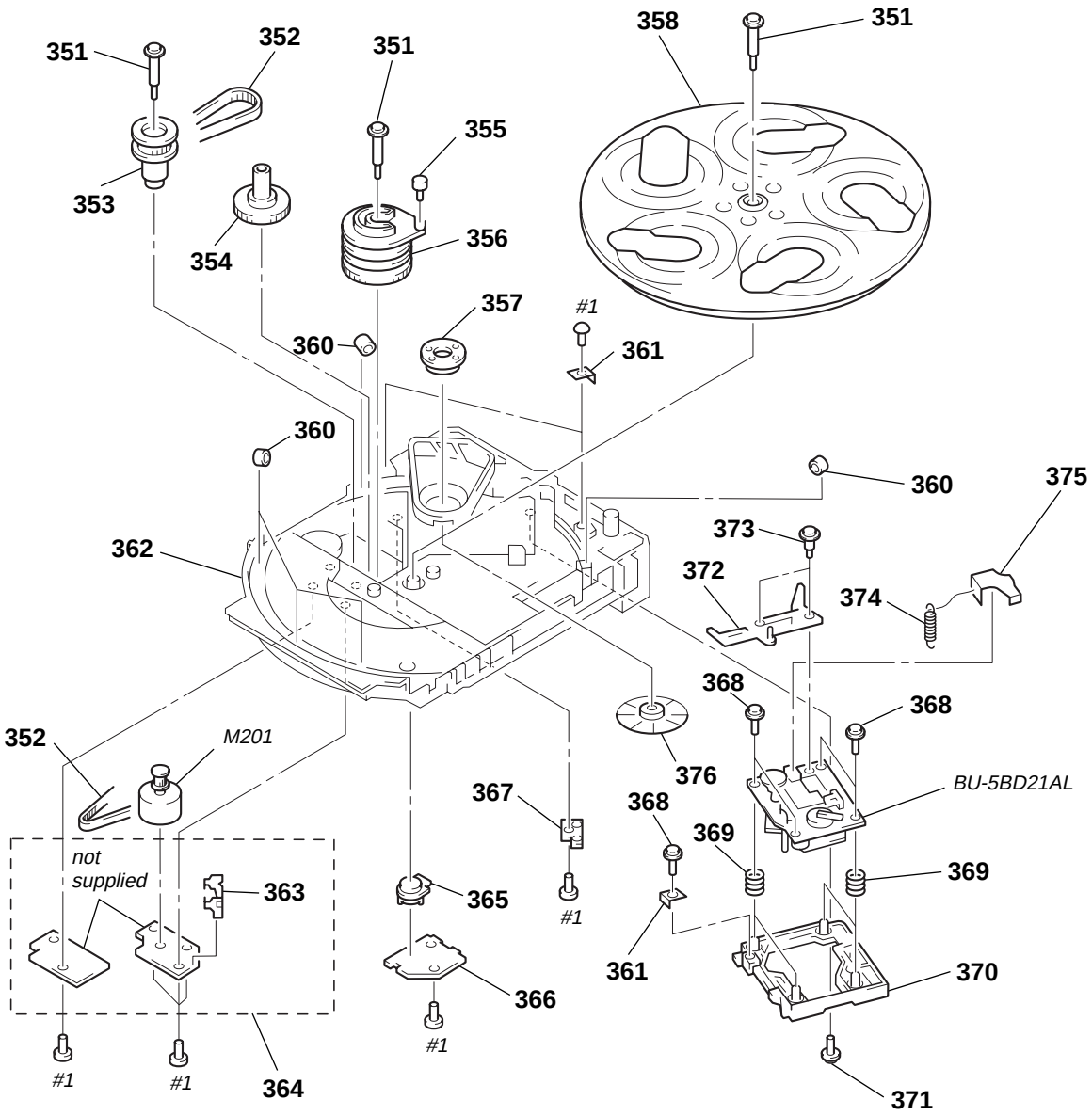
● C : MOTOR board (supplied with AUDIO board)



Ref. No.	Part No.	Description	Remarks
301	3-908-597-01	CAM (A)	
302	3-908-608-11	SCREW, STEP	
303	X-3372-930-3	ARM (A) ASSY, FR	
304	X-3370-882-1	FLYWHEEL (AR) ASSY	
305	3-928-047-01	PULLEY, TENSION	
306	3-908-599-01	LEVER (REV-A)	
307	3-908-601-01	SPRING (REV LEVER), TORSION	
308	3-908-603-01	LEVER (TRIGGER A)	
309	X-3367-593-1	FLYWHEEL (BF) ASSY	
310	3-908-605-01	SPRING (TRIGGER), TORSION	
311	3-908-609-01	GEAR, TRIGGER	
312	3-913-845-11	BELT (A)	
313	3-913-846-11	BELT (FR)	

Ref. No.	Part No.	Description	Remarks
314	X-3370-171-1	FLYWHEEL (BR) ASSY	
315	3-908-600-01	LEVER (REV-B)	
* 316	1-650-669-11	LEAF SWITCH BOARD	
317	3-908-598-01	CAM (B)	
318	X-3372-931-3	ARM (B) ASSY, FR	
319	3-911-114-12	SPRING (FR), TORSION	
320	3-908-604-01	LEVER (TRIGGER B)	
321	3-911-115-01	WASHER, STOPPER	
322	3-917-176-11	BELT (B)	
323	X-3370-172-1	FLYWHEEL (AF) ASSY	
325	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)	
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)	

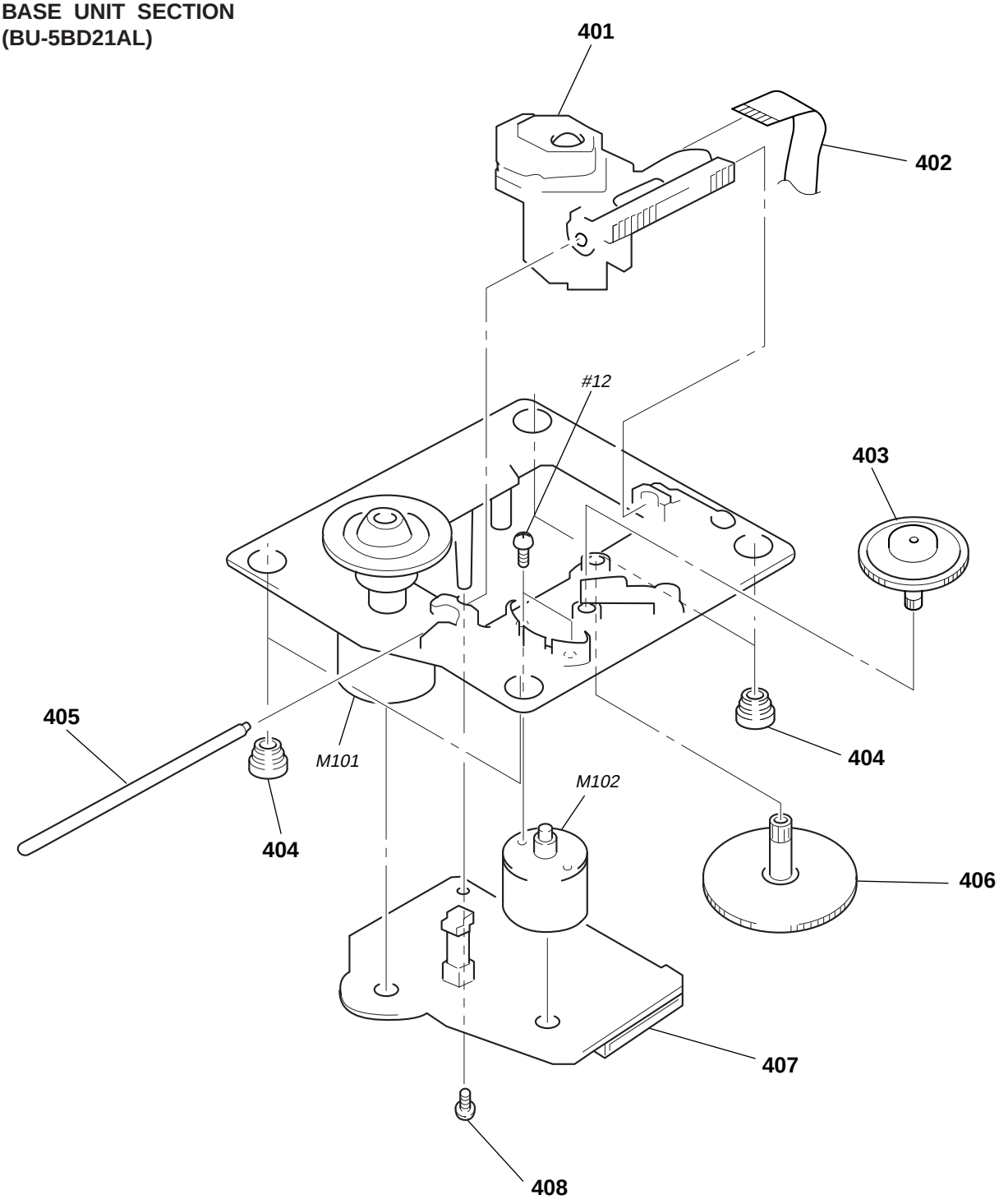
7-8. CD MECHANISM DECK SECTION (CDM37L-5BD21AL)



Ref. No.	Part No.	Description	Remarks
351	4-987-976-01	SCREW, STEP	
352	4-944-490-01	BELT (TIMING)	
353	A-4660-978-A	GEAR (PULLEY) ASSY	
354	4-978-421-01	GEAR (MID)	
355	4-978-425-01	ROLLER (CAM)	
356	4-978-420-01	CAM (HOLDER)	
357	1-452-925-11	MAGNET ASSY	
358	4-978-417-01	TABLE, DISC	
360	X-4947-960-1	ROLLER ASSY	
* 361	4-978-583-01	BRACKET (BU)	
* 362	4-978-418-01	CHASSIS	
* 363	4-980-385-01	HOLDER (SW)	
* 364	A-4673-765-A	CD MOTOR BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remarks
365	4-978-426-01	INDICATOR (NO.)	
* 366	1-659-059-13	BD LED BOARD	
* 367	1-659-058-13	TABLE SENSOR BOARD	
368	4-933-134-01	SCREW (+PTPWH M2.6X6)	
369	4-958-593-01	SPRING (BU), COMPRESSION	
* 370	4-978-419-01	HOLDER (BU-5)	
371	4-917-583-71	BRACKET, YOKE	
372	4-989-493-01	SLIDER (37)	
373	4-989-494-01	SCREW (SLIDER), STEP	
374	4-989-819-01	SPRING, TENSION	
375	4-989-491-11	COVER, LENS	
376	4-994-963-01	PULLEY (LBT), PRESS	
M201	A-4660-977-A	MOTOR ASSY (TABLE)	

7-9. BASE UNIT SECTION (BU-5BD21AL)



Ref. No.	Part No.	Description	Remarks
⚠401	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP	
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
403	4-917-567-01	GEAR (M)	
404	4-951-940-01	INSULATOR (BU)	
405	4-917-565-01	SHAFT, SLED	
406	4-917-564-01	GEAR (P), FLATNESS	
* 407	A-4673-557-A	BD BOARD, COMPLETE	
408	4-951-620-01	SCREW (2.6X8), +BVTP	
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
M102	X-4917-504-1	MOTOR ASSY (SLED)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 8
ELECTRICAL PARTS LIST

AMP

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  IA : Indonesia SP : Singapore
  MY : Malaysia

- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH

When indicating parts by reference number, please include the board name.

- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remarks
*	A-4407-925-A	AMP BOARD, COMPLETE (V5900)			
		**********			
*	A-4407-948-A	AMP BOARD, COMPLETE (V3900)			
		**********			
		< CAPACITOR >			
C801	1-128-582-11	ELECT	10uF	20%	100V
C802	1-162-286-21	CERAMIC	220PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-126-967-11	ELECT	47uF	20%	50V
C806	1-126-967-11	ELECT	47uF	20%	50V
C807	1-128-560-11	ELECT	22uF	20%	100V
C808	1-130-777-00	FILM	0.1uF	10%	100V
C809	1-128-560-11	ELECT	22uF	20%	100V
C810	1-164-159-21	CERAMIC	0.1uF		50V
C811	1-130-493-00	MYLAR	0.068uF	5%	50V
C812	1-130-493-00	MYLAR	0.068uF	5%	50V
C814	1-162-294-31	CERAMIC	0.001uF	10%	50V
C816	1-162-294-31	CERAMIC	0.001uF	10%	50V
C841	1-126-925-11	ELECT	470uF	20%	10V
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-286-21	CERAMIC	220PF	10%	50V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-126-967-11	ELECT	47uF	20%	50V
C856	1-126-967-11	ELECT	47uF	20%	50V
C857	1-128-560-11	ELECT	22uF	20%	100V
C858	1-130-777-00	FILM	0.1uF	10%	100V
C861	1-130-493-00	MYLAR	0.068uF	5%	50V
C862	1-130-493-00	MYLAR	0.068uF	5%	50V
C901	1-117-750-11	ELECT	3300uF	20%	63V (V3900)
C902	1-130-777-00	FILM	0.1uF	10%	100V
C951	1-117-750-11	ELECT	3300uF	20%	63V (V3900)
C952	1-130-777-00	FILM	0.1uF	10%	100V
		< CONNECTOR >			
CN801	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D801	8-719-991-33	DIODE 1SS133T-77			
D841	8-719-991-33	DIODE 1SS133T-77			
D842	8-719-991-33	DIODE 1SS133T-77			
D851	8-719-991-33	DIODE 1SS133T-77			
D901	8-719-510-68	DIODE D5SBA20F01			

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC801	8-749-921-68	IC STK-4231MK2			
		< TRANSISTOR >			
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
		< RESISTOR >			
R801	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-413-11	CARBON	470	5%	1/4W F
R804	1-249-437-11	CARBON	47K	5%	1/4W (V3900)
R805	1-260-107-11	CARBON	4.7K	5%	1/2W
R806	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R808	1-217-156-00	METAL	0.22	10%	5W
R809	1-260-076-11	CARBON	10	5%	1/2W
R811	1-249-417-11	CARBON	1K	5%	1/4W F
R812	1-249-431-11	CARBON	15K	5%	1/4W
R813	1-249-441-11	CARBON	100K	5%	1/4W
R814	1-260-105-11	CARBON	3.3K	5%	1/2W
R816	1-260-105-11	CARBON	3.3K	5%	1/2W
⚠R820	1-202-972-61	FUSIBLE	1	5%	1/4W F
R841	1-249-426-11	CARBON	5.6K	5%	1/4W
R842	1-247-889-00	CARBON	270K	5%	1/4W
R843	1-249-421-11	CARBON	2.2K	5%	1/4W F
R844	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-437-11	CARBON	47K	5%	1/4W
R853	1-249-413-11	CARBON	470	5%	1/4W F
R854	1-249-437-11	CARBON	47K	5%	1/4W (V3900)
R855	1-260-107-11	CARBON	4.7K	5%	1/2W
R856	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠R857	1-212-881-11	FUSIBLE	100	5%	1/4W F
⚠R858	1-217-156-00	METAL	0.22	10%	5W
R859	1-260-076-11	CARBON	10	5%	1/2W
R861	1-249-417-11	CARBON	1K	5%	1/4W F
R862	1-249-431-11	CARBON	15K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W
**********					

AUDIO

Ref. No.	Part No.	Description			Remarks
	A-2007-131-A	AUDIO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-162-289-31	CERAMIC	390PF	10%	50V
C302	1-126-968-11	ELECT	100uF	20%	6.3V
C303	1-162-282-31	CERAMIC	100PF	10%	50V
C304	1-130-483-00	MYLAR	0.01uF	5%	50V
C305	1-107-715-11	ELECT	22uF	20%	16V
C311	1-162-289-31	CERAMIC	390PF	10%	50V
C313	1-162-282-31	CERAMIC	100PF	10%	50V
C314	1-130-487-00	MYLAR	0.022uF	5%	50V
C315	1-126-233-11	ELECT	22uF	20%	50V
C331	1-137-427-11	FILM	120PF	5%	50V
C332	1-162-288-31	CERAMIC	330PF	10%	50V
C333	1-162-209-31	CERAMIC	27PF	5%	50V
C401	1-162-289-31	CERAMIC	390PF	10%	50V
C402	1-126-968-11	ELECT	100uF	20%	6.3V
C403	1-162-282-31	CERAMIC	100PF	10%	50V
C404	1-130-483-00	MYLAR	0.01uF	5%	50V
C405	1-107-715-11	ELECT	22uF	20%	16V
C411	1-162-289-31	CERAMIC	390PF	10%	50V
C413	1-162-282-31	CERAMIC	100PF	10%	50V
C414	1-130-487-00	MYLAR	0.022uF	5%	50V
C415	1-126-233-11	ELECT	22uF	20%	50V
C431	1-137-427-11	FILM	120PF	5%	50V
C432	1-162-288-31	CERAMIC	330PF	10%	50V
C433	1-162-209-31	CERAMIC	27PF	5%	50V
C601	1-104-396-11	ELECT	10uF	20%	16V
C602	1-104-396-11	ELECT	10uF	20%	16V
C611	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-907-11	ELECT	10uF	20%	50V
C621	1-137-150-11	FILM	0.01uF	5%	100V
C622	1-126-961-11	ELECT	2.2uF	20%	50V
C623	1-136-155-00	FILM	0.015uF	5%	50V
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V
C627	1-124-903-11	ELECT	1uF	20%	50V
C628	1-136-153-00	FILM	0.01uF	5%	50V
C642	1-104-664-11	ELECT	47uF	20%	16V
C651	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
CN601	1-695-382-31	PIN, CONNECTOR (PC BOARD) 21P			
CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
* CN651	1-564-521-11	PLUG, CONNECTOR 6P			
		< IC >			
IC601	8-759-111-44	IC UPC4570C-1			
IC602	8-759-143-54	IC UPC1330HA			
IC611	8-759-111-44	IC UPC4570C-1			
		< COIL >			
L331	1-410-780-11	INDUCTOR	27mH		
L431	1-410-780-11	INDUCTOR	27mH		

Ref. No.	Part No.	Description			Remarks
		< TRANSISTOR >			
Q621	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q622	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q623	8-729-801-93	TRANSISTOR	2SD1387		
Q651	8-729-900-65	TRANSISTOR	DTA144ES		
		< RESISTOR >			
R301	1-247-881-00	CARBON	120K	5%	1/4W
R302	1-249-409-11	CARBON	220	5%	1/4W F
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-247-889-00	CARBON	270K	5%	1/4W
R305	1-247-858-11	CARBON	13K	5%	1/4W
R311	1-247-881-00	CARBON	120K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R314	1-247-882-11	CARBON	130K	5%	1/4W
R315	1-247-850-11	CARBON	6.2K	5%	1/4W
R331	1-249-430-11	CARBON	12K	5%	1/4W
R401	1-247-881-00	CARBON	120K	5%	1/4W
R402	1-249-409-11	CARBON	220	5%	1/4W F
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-247-889-00	CARBON	270K	5%	1/4W
R405	1-247-858-11	CARBON	13K	5%	1/4W
R411	1-247-881-00	CARBON	120K	5%	1/4W
R412	1-247-807-31	CARBON	100	5%	1/4W
R414	1-247-882-11	CARBON	130K	5%	1/4W
R415	1-247-850-11	CARBON	6.2K	5%	1/4W
R431	1-249-430-11	CARBON	12K	5%	1/4W
R601	1-249-409-11	CARBON	220	5%	1/4W F
R602	1-249-409-11	CARBON	220	5%	1/4W F
R608	1-249-409-11	CARBON	220	5%	1/4W F
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W F
R612	1-249-409-11	CARBON	220	5%	1/4W F
R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R651	1-247-856-00	CARBON	11K	5%	1/4W
R652	1-247-856-00	CARBON	11K	5%	1/4W
R653	1-249-441-11	CARBON	100K	5%	1/4W
		< VARIABLE RESISTOR >			
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-238-551-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-238-551-11	RES, ADJ, CARBON 220K			
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K			
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< TRANSFORMER >			
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			

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Ref. No.	Part No.	Description			Remarks
*	A-4673-557-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C105	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C140	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-774-115-11	CONNECTOR, (FFC/FPC) 29P			
CN102	1-770-014-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC101	8-752-369-78	IC CXD2545Q			
IC102	8-759-176-09	IC BA6392FP			
IC103	8-752-072-45	IC CXA1821M-T6			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-R			
		< RESISTOR/CHIP CONDUCTOR >			
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-00	METAL CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-00	METAL CHIP	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-00	METAL CHIP	1M	5%	1/10W
R110	1-216-025-00	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R112	1-216-049-11	METAL CHIP	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-00	METAL CHIP	100K	5%	1/10W
R125	1-216-033-00	METAL CHIP	220	5%	1/10W
R126	1-216-033-00	METAL CHIP	220	5%	1/10W
R127	1-216-033-00	METAL CHIP	220	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R132	1-216-073-00	METAL CHIP	10K	5%	1/10W
R134	1-216-049-11	METAL CHIP	1K	5%	1/10W
R135	1-216-295-00	CONDUCTOR, CHIP (2012)			
R136	1-216-295-00	CONDUCTOR, CHIP (2012)			
R137	1-216-295-00	CONDUCTOR, CHIP (2012)			
R138	1-216-295-00	CONDUCTOR, CHIP (2012)			
R141	1-216-089-00	METAL CHIP	47K	5%	1/10W
R142	1-216-081-00	METAL CHIP	22K	5%	1/10W
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R146	1-216-073-00	METAL CHIP	10K	5%	1/10W
R147	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	METAL CHIP	12	5%	1/10W
R158	1-216-109-00	METAL CHIP	330K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R160	1-216-295-00	CONDUCTOR, CHIP (2012)			
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)			
**********					
*	A-4673-765-A	CD MOTOR BOARD, COMPLETE			
		**********			
*	4-980-385-01	HOLDER (SW)			
		< CAPACITOR >			
C201	1-124-907-11	ELECT	10uF	20%	50V
C202	1-164-159-21	CERAMIC	0.1uF		50V
C203	1-124-907-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN201	1-568-947-11	PIN, CONNECTOR 9P			
		< IC >			
IC201	8-759-365-94	IC TA8409S			
		< COIL >			
L201	1-408-117-00	INDUCTOR	10uH		
		< RESISTOR >			
R205	1-249-427-11	CARBON	6.8K	5%	1/4W F
R206	1-249-425-11	CARBON	4.7K	5%	1/4W F
		< SWITCH >			
S201	1-762-587-11	SWITCH, PUSH (1 KEY)			
**********					

CD-A SW | CD-B1 SW | CD-B2 SW | DOOR SW | HP/MIC

Ref. No.	Part No.	Description				Remarks
*	1-669-630-11	CD-A SW BOARD				
		**********				
		< DIODE >				
D641	8-719-058-04	DIODE SEL5223S-TP15 (CD NON-STOP)				
D642	8-719-058-04	DIODE SEL5223S-TP15 (VCD)				
D643	8-719-058-04	DIODE SEL5223S-TP15 (PBC)				
D644	8-719-058-04	DIODE SEL5223S-TP15 (AUTO PBC)				
		< RESISTOR >				
R731	1-249-415-11	CARBON	680	5%	1/4W	F
R732	1-249-417-11	CARBON	1K	5%	1/4W	F
R733	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R734	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R735	1-247-843-11	CARBON	3.3K	5%	1/4W	
R736	1-249-426-11	CARBON	5.6K	5%	1/4W	
R737	1-249-430-11	CARBON	12K	5%	1/4W	
R738	1-249-436-11	CARBON	39K	5%	1/4W	
R739	1-249-430-11	CARBON	12K	5%	1/4W	
R740	1-249-436-11	CARBON	39K	5%	1/4W	
R741	1-247-807-31	CARBON	100	5%	1/4W	
R742	1-247-807-31	CARBON	100	5%	1/4W	
R743	1-247-807-31	CARBON	100	5%	1/4W	
R744	1-247-807-31	CARBON	100	5%	1/4W	
		< SWITCH >				
S661	1-554-303-21	SWITCH, TACTILE (DISC 1)				
S662	1-554-303-21	SWITCH, TACTILE (DISC 2)				
S663	1-554-303-21	SWITCH, TACTILE (DISC 3)				
S664	1-554-303-21	SWITCH, TACTILE (DISC 4)				
S665	1-554-303-21	SWITCH, TACTILE (DISC 5)				
S666	1-554-303-21	SWITCH, TACTILE (CD FLASH)				
S667	1-554-303-21	SWITCH, TACTILE (CD NON-STOP)				
S668	1-554-303-21	SWITCH, TACTILE (CD LOOP)				
S669	1-554-303-21	SWITCH, TACTILE (RETURN)				
S670	1-554-303-21	SWITCH, TACTILE (PREV)				
S671	1-554-303-21	SWITCH, TACTILE (NEXT)				
**********						
*	1-669-631-11	CD-B1 SW BOARD				
		**********				
		< CONNECTOR >				
* CN642	1-568-943-11	PIN, CONNECTOR 5P				
		< DIODE >				
D645	8-719-058-03	DIODE SEL5423E-TP15 (PLAY)				
D646	8-719-057-97	DIODE SEL5923A-TP15 (PAUSE)				
D647	8-719-058-03	DIODE SEL5423E-TP15 (PLAY)				
		< RESISTOR >				
R745	1-249-412-11	CARBON	390	5%	1/4W	F
R746	1-249-414-11	CARBON	560	5%	1/4W	F
R747	1-249-415-11	CARBON	680	5%	1/4W	F
R748	1-249-417-11	CARBON	1K	5%	1/4W	F
R749	1-247-807-31	CARBON	100	5%	1/4W	
R750	1-247-807-31	CARBON	100	5%	1/4W	
R751	1-247-807-31	CARBON	100	5%	1/4W	

Ref. No.	Part No.	Description				Remarks
		< SWITCH >				
S676	1-554-303-21	SWITCH, TACTILE (PLAY)				
S677	1-554-303-21	SWITCH, TACTILE (STOP)				
S678	1-554-303-21	SWITCH, TACTILE (PAUSE)				
S679	1-554-303-21	SWITCH, TACTILE (DISC SKIP)				
**********						
*	1-669-632-11	CD-B2 SW BOARD				
		**********				
		< RESISTOR >				
R752	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R753	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R754	1-247-843-11	CARBON	3.3K	5%	1/4W	
R755	1-249-426-11	CARBON	5.6K	5%	1/4W	
R756	1-249-430-11	CARBON	12K	5%	1/4W	
		< SWITCH >				
S681	1-554-303-21	SWITCH, TACTILE (FF)				
S682	1-554-303-21	SWITCH, TACTILE (REPEAT)				
S683	1-554-303-21	SWITCH, TACTILE (PLAY MODE)				
S684	1-554-303-21	SWITCH, TACTILE (1/ALL DISCS)				
S685	1-554-303-21	SWITCH, TACTILE (EDIT)				
S686	1-554-303-21	SWITCH, TACTILE (REW)				
S711	1-467-968-11	ENCODER, ROTARY (AMS)				
**********						
*	1-664-016-11	DOOR SW BOARD				
		**********				
		< CAPACITOR >				
C691	1-164-159-21	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
CN661	1-506-481-11	PIN, CONNECTOR 2P				
		< SWITCH >				
S691	1-771-057-11	SWITCH, PUSH (1 KEY) (OPEN)				
**********						
*	A-4403-916-A	HP/MIC BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C760	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C761	1-126-961-11	ELECT	2.2uF	20%	50V	
C762	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C763	1-126-961-11	ELECT	2.2uF	20%	50V	
C764	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C765	1-162-215-31	CERAMIC	47PF	5%	50V	
C766	1-162-290-31	CERAMIC	470PF	10%	50V	
C767	1-162-215-31	CERAMIC	47PF	5%	50V	
C768	1-126-961-11	ELECT	2.2uF	20%	50V	
C769	1-162-282-31	CERAMIC	100PF	10%	50V	
C770	1-126-961-11	ELECT	2.2uF	20%	50V	
C771	1-126-959-11	ELECT	0.47uF	20%	50V	
C773	1-126-964-11	ELECT	10uF	20%	50V	
C774	1-126-964-11	ELECT	10uF	20%	50V	
C775	1-162-294-31	CERAMIC	0.001uF	10%	50V	

Ref. No.	Part No.	Description			Remarks
C776	1-162-294-31	CERAMIC	0.001uF	10%	50V
C777	1-126-960-11	ELECT	1uF	20%	50V
C778	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C779	1-162-294-31	CERAMIC	0.001uF	10%	50V
C780	1-136-495-11	FILM	0.068uF	5%	50V
C781	1-126-957-11	ELECT	0.22uF	20%	50V
C782	1-126-957-11	ELECT	0.22uF	20%	50V
C783	1-104-664-11	ELECT	47uF	20%	10V
C784	1-136-495-11	FILM	0.068uF	5%	50V
C785	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C786	1-162-294-31	CERAMIC	0.001uF	10%	50V
C787	1-124-250-11	ELECT	0.15uF	20%	50V
C788	1-126-960-11	ELECT	1uF	20%	50V
C789	1-161-494-00	CERAMIC	0.022uF		25V
C790	1-104-664-11	ELECT	47uF	20%	10V
C791	1-164-159-21	CERAMIC	0.1uF		50V
C794	1-164-159-21	CERAMIC	0.1uF		50V
C795	1-164-159-21	CERAMIC	0.1uF		50V
C797	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C798	1-164-159-21	CERAMIC	0.1uF		50V
C799	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN701	1-568-935-11	PIN, CONNECTOR 8P			
		< DIODE >			
D761	8-719-200-82	DIODE 11ES2			
D762	8-719-200-82	DIODE 11ES2			
D763	8-719-200-82	DIODE 11ES2			
		< IC >			
IC760	8-759-634-51	IC M5218AP			
IC761	8-759-450-96	IC M65850P			
		< JACK >			
J760	1-770-226-41	JACK (LARGE TYPE) (PHONES)			
J761	1-770-226-41	JACK (LARGE TYPE) (MIC 1)			
J762	1-770-226-41	JACK (LARGE TYPE) (MIC 2)			
		< COIL >			
L761	1-410-521-11	INDUCTOR	100uH		
		< RESISTOR >			
R760	1-249-429-11	CARBON	10K	5%	1/4W
R761	1-249-417-11	CARBON	1K	5%	1/4W F
R762	1-249-429-11	CARBON	10K	5%	1/4W
R763	1-249-417-11	CARBON	1K	5%	1/4W F
R764	1-249-441-11	CARBON	100K	5%	1/4W
R765	1-249-417-11	CARBON	1K	5%	1/4W F
R766	1-249-437-11	CARBON	47K	5%	1/4W
R767	1-249-429-11	CARBON	10K	5%	1/4W
R768	1-249-431-11	CARBON	15K	5%	1/4W
R769	1-247-885-00	CARBON	180K	5%	1/4W
R770	1-247-807-31	CARBON	100	5%	1/4W
R771	1-247-863-91	CARBON	22K	5%	1/4W
R772	1-247-863-91	CARBON	22K	5%	1/4W
R773	1-247-863-91	CARBON	22K	5%	1/4W
R774	1-247-881-00	CARBON	120K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R775	1-247-863-91	CARBON	22K	5%	1/4W
R776	1-247-863-91	CARBON	22K	5%	1/4W
R777	1-247-863-91	CARBON	22K	5%	1/4W
R778	1-249-437-11	CARBON	47K	5%	1/4W
R779	1-249-431-11	CARBON	15K	5%	1/4W
		< VARIABLE RESISTOR >			
RV760	1-225-366-11	RES, VAR, CARBON 50K (MIC LEVEL)			
RV761	1-225-366-11	RES, VAR, CARBON 50K (ECHO LEVEL)			
**********					
*	A-4403-922-A	KEY-CON BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-126-382-11	ELECT	100uF	20%	6.3V
C502	1-164-159-21	CERAMIC	0.1uF		50V
C503	1-104-664-11	ELECT	47uF	20%	10V
C504	1-164-159-21	CERAMIC	0.1uF		50V
C505	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C506	1-162-286-21	CERAMIC	220PF	10%	50V
C507	1-162-286-21	CERAMIC	220PF	10%	50V
C508	1-136-495-11	FILM	0.068uF	5%	50V
C509	1-136-495-11	FILM	0.068uF	5%	50V
C510	1-136-495-11	FILM	0.068uF	5%	50V
C511	1-164-159-21	CERAMIC	0.1uF		50V
C512	1-162-284-31	CERAMIC	150PF	10%	50V
C513	1-136-165-00	FILM	0.1uF	5%	50V
C514	1-136-165-00	FILM	0.1uF	5%	50V
C515	1-162-294-31	CERAMIC	0.001uF	10%	50V
C516	1-162-294-31	CERAMIC	0.001uF	10%	50V
C517	1-162-294-31	CERAMIC	0.001uF	10%	50V
C518	1-162-306-11	CERAMIC	0.01uF	20%	16V
C519	1-162-294-31	CERAMIC	0.001uF	10%	50V
C520	1-126-964-11	ELECT	10uF	20%	50V
C521	1-162-291-31	CERAMIC	560PF	10%	50V
C522	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C523	1-162-290-31	CERAMIC	470PF	10%	50V
C524	1-126-964-11	ELECT	10uF	20%	50V
C525	1-126-964-11	ELECT	10uF	20%	50V
C526	1-126-964-11	ELECT	10uF	20%	50V
C527	1-126-964-11	ELECT	10uF	20%	50V
C1439	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN501	1-566-999-11	PIN, CONNECTOR 13P			
		< IC >			
IC501	8-759-370-84	IC M65847FP-TP			
IC502	8-759-140-53	IC UPD4053BC			
		< COIL >			
L501	1-410-521-11	INDUCTOR	100uH		
		< TRANSISTOR >			
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51			
Q502	8-729-029-66	TRANSISTOR DTC114ESA			

KEY-CON | LEAF SWITCH | BD LED | LED | MAIN

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R501	1-247-807-31	CARBON	100	5% 1/4W	
R502	1-249-429-11	CARBON	10K	5% 1/4W	
R503	1-247-807-31	CARBON	100	5% 1/4W	
R504	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R505	1-247-903-00	CARBON	1M	5% 1/4W	
R506	1-249-429-11	CARBON	10K	5% 1/4W	
R507	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R508	1-249-429-11	CARBON	10K	5% 1/4W	
R509	1-249-434-11	CARBON	27K	5% 1/4W	
R510	1-249-426-11	CARBON	5.6K	5% 1/4W	
R511	1-249-424-11	CARBON	3.9K	5% 1/4W	F
R512	1-249-431-11	CARBON	15K	5% 1/4W	
R513	1-249-429-11	CARBON	10K	5% 1/4W	
R514	1-247-863-91	CARBON	22K	5% 1/4W	
R515	1-249-429-11	CARBON	10K	5% 1/4W	
R516	1-249-441-11	CARBON	100K	5% 1/4W	
R517	1-247-863-91	CARBON	22K	5% 1/4W	
R518	1-247-863-91	CARBON	22K	5% 1/4W	
R519	1-249-441-11	CARBON	100K	5% 1/4W	
R520	1-249-441-11	CARBON	100K	5% 1/4W	
R521	1-249-429-11	CARBON	10K	5% 1/4W	
R522	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R523	1-249-425-11	CARBON	4.7K	5% 1/4W	F
R524	1-249-429-11	CARBON	10K	5% 1/4W	
R525	1-249-417-11	CARBON	1K	5% 1/4W	F
**********					
*	1-650-669-11	LEAF SWITCH BOARD			
		**********			
		< CONNECTOR >			
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P			
CN1001	1-695-372-31	PIN, CONNECTOR (PC BOARD) 11P			
		< TRANSISTOR >			
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR ` NJL5165KA-H			
Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA-H			
		< RESISTOR >			
R1001	1-247-818-11	CARBON	300	5% 1/4W	
R1002	1-247-820-11	CARBON	360	5% 1/4W	
R1003	1-249-414-11	CARBON	560	5% 1/4W	F
R1004	1-247-834-11	CARBON	1.3K	5% 1/4W	
R1005	1-247-818-11	CARBON	300	5% 1/4W	
		< SWITCH >			
S1001	1-692-832-11	SWITCH, PUSH (1 KEY)			
S1002	1-692-832-11	SWITCH, PUSH (1 KEY)			
S1004	1-571-281-21	SWITCH, LEAF			
S1005	1-571-281-21	SWITCH, LEAF			
S1006	1-572-248-11	SWITCH, LEAF			
S1007	1-572-248-11	SWITCH, LEAF			
S1008	1-571-281-21	SWITCH, LEAF			
S1009	1-571-281-21	SWITCH, LEAF			
**********					

Ref. No.	Part No.	Description			Remarks
*	1-659-059-13	BD LED BOARD			
		**********			
		< DIODE >			
D201	8-719-032-98	DIODE SEL5820A			
		< TRANSISTOR >			
Q201	8-729-119-78	TRANSISTOR 2SC403SP-51			
		< RESISTOR >			
R201	1-247-863-91	CARBON	22K	5% 1/4W	
R202	1-249-411-11	CARBON	330	5% 1/4W	
R203	1-249-437-11	CARBON	47K	5% 1/4W	
**********					
*	1-664-017-11	LED BOARD			
		**********			
		< CONNECTOR >			
CN671	1-506-481-11	PIN, CONNECTOR 2P			
		< DIODE >			
D671	8-719-058-03	DIODE SEL5423E-TP15			
D672	8-719-058-03	DIODE SEL5423E-TP15			
D673	8-719-058-03	DIODE SEL5423E-TP15			
D674	8-719-058-03	DIODE SEL5423E-TP15			
		< RESISTOR >			
R791	1-249-412-11	CARBON	390	5% 1/4W	F
**********					
*	A-4407-927-A	MAIN BOARD, COMPLETE (V5900)			
		**********			
*	A-4407-950-A	MAIN BOARD, COMPLETE (V3900)			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C100	1-164-159-21	CERAMIC	0.1uF	50V	
C101	1-162-288-31	CERAMIC	330PF	10% 50V	
C102	1-162-282-31	CERAMIC	100PF	10% 50V	
C103	1-162-282-31	CERAMIC	100PF	10% 50V	
C104	1-126-961-11	ELECT	2.2uF	20% 50V	
C105	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C106	1-162-301-11	CERAMIC	0.0015uF	30% 16V	
C107	1-126-956-91	ELECT	0.1uF	20% 50V	
C108	1-104-664-11	ELECT	47uF	20% 10V	
C121	1-162-286-21	CERAMIC	220PF	10% 50V	
C122	1-162-286-21	CERAMIC	220PF	10% 50V	
C123	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C131	1-136-495-11	FILM	0.068uF	5% 50V	
C132	1-136-495-11	FILM	0.068uF	5% 50V	
C151	1-162-288-31	CERAMIC	330PF	10% 50V	
C152	1-162-282-31	CERAMIC	100PF	10% 50V	
C153	1-162-282-31	CERAMIC	100PF	10% 50V	
C154	1-126-961-11	ELECT	2.2uF	20% 50V	
C155	1-162-600-11	CERAMIC	0.0047uF	30% 16V	
C156	1-162-301-11	CERAMIC	0.0015uF	30% 16V	

Ref. No.	Part No.	Description			Remarks
C157	1-126-956-91	ELECT	0.1uF	20%	50V
C158	1-104-664-11	ELECT	47uF	20%	10V
C171	1-162-286-21	CERAMIC	220PF	10%	50V
C172	1-162-286-21	CERAMIC	220PF	10%	50V
C173	1-162-306-11	CERAMIC	0.01uF	20%	16V
C181	1-136-495-11	FILM	0.068uF	5%	50V
C182	1-136-495-11	FILM	0.068uF	5%	50V
C191	1-126-963-11	ELECT	4.7uF	20%	50V (V5900)
C192	1-164-159-21	CERAMIC	0.1uF		50V (V5900)
C201	1-136-167-00	FILM	0.15uF	5%	50V
C202	1-136-167-00	FILM	0.15uF	5%	50V
C203	1-130-493-00	MYLAR	0.068uF	5%	50V
C204	1-130-493-00	MYLAR	0.068uF	5%	50V
C205	1-130-486-00	MYLAR	0.018uF	10%	50V
C206	1-130-486-00	MYLAR	0.018uF	10%	50V
C207	1-130-480-00	MYLAR	0.0056uF	5%	50V
C208	1-130-479-00	MYLAR	0.0047uF	5%	50V
C209	1-130-474-00	MYLAR	0.0018uF	5%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V
C211	1-126-964-11	ELECT	10uF	20%	50V
C212	1-130-483-00	MYLAR	0.01uF	5%	50V
C213	1-136-169-00	FILM	0.22uF	5%	50V
C214	1-136-169-00	FILM	0.22uF	5%	50V
C215	1-162-294-31	CERAMIC	0.001uF	10%	50V
C216	1-136-167-00	FILM	0.15uF	5%	50V
C221	1-104-664-11	ELECT	47uF	20%	10V
C222	1-104-664-11	ELECT	47uF	20%	10V
C223	1-126-964-11	ELECT	10uF	20%	50V
C224	1-162-290-31	CERAMIC	470PF	10%	50V
C226	1-126-964-11	ELECT	10uF	20%	50V
C227	1-164-159-21	CERAMIC	0.1uF		50V
C231	1-109-889-11	ELECT	1uF	20%	50V
C251	1-136-167-00	FILM	0.15uF	5%	50V
C252	1-136-167-00	FILM	0.15uF	5%	50V
C253	1-130-493-00	MYLAR	0.068uF	5%	50V
C254	1-130-493-00	MYLAR	0.068uF	5%	50V
C255	1-130-486-00	MYLAR	0.018uF	10%	50V
C256	1-130-486-00	MYLAR	0.018uF	10%	50V
C257	1-130-480-00	MYLAR	0.0056uF	5%	50V
C258	1-130-479-00	MYLAR	0.0047uF	5%	50V
C259	1-130-474-00	MYLAR	0.0018uF	5%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V
C261	1-126-964-11	ELECT	10uF	20%	50V
C262	1-130-483-00	MYLAR	0.01uF	5%	50V
C263	1-136-169-00	FILM	0.22uF	5%	50V
C264	1-136-169-00	FILM	0.22uF	5%	50V
C276	1-126-964-11	ELECT	10uF	20%	50V
C281	1-104-665-11	ELECT	100uF	20%	10V
C282	1-126-961-11	ELECT	2.2uF	20%	50V
C283	1-104-665-11	ELECT	100uF	20%	10V
C284	1-126-934-11	ELECT	220uF	20%	10V
C291	1-126-959-11	ELECT	0.47uF	20%	50V
C301	1-104-664-11	ELECT	47uF	20%	10V
C302	1-164-159-21	CERAMIC	0.1uF		50V
C303	1-136-173-00	FILM	0.47uF	5%	50V
C304	1-126-926-11	ELECT	1000uF	20%	10V
C305	1-162-306-11	CERAMIC	0.01uF	20%	16V
C309	1-102-514-11	CERAMIC	22PF	5%	50V
C310	1-102-514-11	CERAMIC	22PF	5%	50V
C311	1-164-159-21	CERAMIC	0.1uF		50V
C315	1-104-665-11	ELECT	100uF	20%	10V
C316	1-136-165-00	FILM	0.1uF	5%	50V
C393	1-126-925-11	ELECT	470uF	20%	10V
C396	1-126-961-11	ELECT	2.2uF	20%	50V
C398	1-126-961-11	ELECT	2.2uF	20%	50V
C901	1-128-493-11	ELECT	4700uF	20%	71V (V5900)
C903	1-136-165-00	FILM	0.1uF	5%	50V
C904	1-115-364-11	ELECT	22000uF	20%	16V
C906	1-126-934-11	ELECT	220uF	20%	10V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-104-665-11	ELECT	100uF	20%	10V
C911	1-126-964-11	ELECT	10uF	20%	50V
C912	1-126-916-11	ELECT	1000uF	20%	6.3V
C913	1-126-943-11	ELECT	2200uF	20%	25V
C914	1-126-767-11	ELECT	1000uF	20%	16V
C915	1-104-664-11	ELECT	47uF	20%	16V
C916	1-164-159-21	CERAMIC	0.1uF		50V
C917	1-126-968-11	ELECT	100uF	20%	50V
C918	1-126-968-11	ELECT	100uF	20%	50V
C919	1-126-964-11	ELECT	10uF	20%	50V
C920	1-126-947-11	ELECT	47uF	20%	35V
C951	1-128-493-11	ELECT	4700uF	20%	71V (V5900)
C953	1-136-165-00	FILM	0.1uF	5%	50V
C954	1-126-943-11	ELECT	2200uF	20%	25V
C956	1-126-934-11	ELECT	220uF	20%	10V
C1501	1-130-479-00	MYLAR	0.0047uF	5%	50V
C1502	1-162-290-31	CERAMIC	470PF	10%	50V
C1503	1-164-159-21	CERAMIC	0.1uF		50V
C1504	1-126-960-11	ELECT	1uF	20%	50V
C1505	1-126-964-11	ELECT	10uF	20%	50V
C1506	1-126-964-11	ELECT	10uF	20%	50V
C1507	1-126-960-11	ELECT	1uF	20%	50V
C1508	1-104-665-11	ELECT	100uF	20%	10V
C1523	1-126-933-11	ELECT	100uF	20%	16V
C1531	1-164-159-21	CERAMIC	0.1uF		50V
C1532	1-164-159-21	CERAMIC	0.1uF		50V
C1533	1-164-159-21	CERAMIC	0.1uF		50V
C1534	1-126-935-11	ELECT	470uF	20%	16V
C1551	1-130-479-00	MYLAR	0.0047uF	5%	50V
C1552	1-162-290-31	CERAMIC	470PF	10%	50V
C1553	1-164-159-21	CERAMIC	0.1uF		50V
C1554	1-126-960-11	ELECT	1uF	20%	50V
C1555	1-126-964-11	ELECT	10uF	20%	50V
C1556	1-126-964-11	ELECT	10uF	20%	50V
C1557	1-126-960-11	ELECT	1uF	20%	50V
C1558	1-104-665-11	ELECT	100uF	20%	10V

< CONNECTOR >

CN101	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P	
* CN102	1-568-836-11	SOCKET, CONNECTOR 17P	
CN105	1-564-506-11	PLUG, CONNECTOR 3P (V5900)	
* CN201	1-568-832-11	SOCKET, CONNECTOR 13P	
* CN202	1-568-832-11	SOCKET, CONNECTOR 13P	
* CN203	1-568-936-11	PIN, CONNECTOR 9P	
CN205	1-568-838-11	SOCKET, CONNECTOR 21P	
* CN206	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN207	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	

MAIN

Ref. No.	Part No.	Description	Remarks
		< DIODE >	
D141	8-719-991-33	DIODE 1SS133T-77	
D191	8-719-991-33	DIODE 1SS133T-77 (V5900)	
D192	8-719-991-33	DIODE 1SS133T-77 (V5900)	
D261	8-719-991-33	DIODE 1SS133T-77 (V5900)	
D281	8-719-991-33	DIODE 1SS133T-77 (V3900)	
D291	8-719-991-33	DIODE 1SS133T-77	
D301	8-719-200-82	DIODE 11ES2	
D302	8-719-200-82	DIODE 11ES2	
D303	8-719-991-33	DIODE 1SS133T-77	
D304	8-719-991-33	DIODE 1SS133T-77	
D305	8-719-991-33	DIODE 1SS133T-77	
D306	8-719-991-33	DIODE 1SS133T-77	
D307	8-719-991-33	DIODE 1SS133T-77	
D309	8-719-991-33	DIODE 1SS133T-77 (V5900)	
D901	8-719-982-27	DIODE MTZJ-33C	
D902	8-719-975-85	DIODE ERB83-004	
D903	8-719-975-85	DIODE ERB83-004	
D904	8-719-975-85	DIODE ERB83-004	
D905	8-719-975-85	DIODE ERB83-004	
D906	8-719-200-82	DIODE 11ES2	
D907	8-719-200-82	DIODE 11ES2	
D908	8-719-200-82	DIODE 11ES2	
D909	8-719-200-82	DIODE 11ES2	
D910	8-719-011-17	DIODE UZ-33BSB-TA	
D911	8-719-011-47	DIODE UZ-3.3BSB-TA	
D912	8-719-991-33	DIODE 1SS133T-77	
D913	8-719-200-82	DIODE 11ES2	
D914	8-719-200-82	DIODE 11ES2	
D915	8-719-935-69	DIODE HZS11B1LTD	
D916	8-719-991-33	DIODE 1SS133T-77	
D951	8-719-991-33	DIODE 1SS133T-77	
D952	8-719-991-33	DIODE 1SS133T-77	
		< GROUND >	
* ETP1	4-870-539-11	PLATE, GROUND	
		< FERRITE BEAD >	
FB302	1-412-473-21	INDUCTOR 0UH	
		< IC >	
IC101	8-759-634-50	IC M5218AL	
IC102	8-759-000-48	IC MC14052BCP	
IC201	8-759-460-02	IC M62427FP-A	
IC231	8-759-634-50	IC M5218AL	
IC281	8-759-111-68	IC UPC1237HA	
IC301	8-759-496-73	IC uPD780016YGF-022-3BA	
IC302	8-759-635-63	IC M51943BSL	
IC901	8-759-288-53	IC LA5617	
IC902	8-759-604-86	IC M5F7807L	
IC903	8-759-231-53	IC TA7805S	
IC904	8-759-391-87	IC BA78M12P	
IC1501	8-759-363-21	IC HA12203	
IC1502	8-759-822-09	IC LB1641	
		< JACK >	
J101	1-774-411-11	JACK, PIN 6P	

Ref. No.	Part No.	Description	Remarks
		< COIL >	
L131	1-420-872-00	COIL, AIR-CORE	
L181	1-420-872-00	COIL, AIR-CORE	
L301	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q141	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q142	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q191	8-729-119-76	TRANSISTOR 2SA1175-HFE (V5900)	
Q192	8-729-111-29	TRANSISTOR 2SD1616A-K (V5900)	
Q201	8-729-900-36	TRANSISTOR DTC124ES (V5900)	
Q202	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q203	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q204	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q231	8-729-900-63	TRANSISTOR DTA124ES	
Q232	8-729-900-63	TRANSISTOR DTA124ES	
Q251	8-729-900-36	TRANSISTOR DTC124ES (V5900)	
Q252	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q253	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q254	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q281	8-729-900-36	TRANSISTOR DTC124ES	
Q282	8-729-900-63	TRANSISTOR DTA124ES	
Q283	8-729-900-36	TRANSISTOR DTC124ES	
Q301	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q903	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q904	8-729-030-19	TRANSISTOR 2SB1640	
Q905	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q906	8-729-900-63	TRANSISTOR DTA124ES	
Q907	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1531	8-729-801-93	TRANSISTOR 2SD1387	
Q1532	8-729-029-66	TRANSISTOR DTC114ESA	
Q1533	8-729-029-66	TRANSISTOR DTC114ESA	
Q1534	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q1535	8-729-029-66	TRANSISTOR DTC114ESA	
		< RESISTOR >	
R101	1-249-417-11	CARBON 1K 5% 1/4W F	
R102	1-249-417-11	CARBON 1K 5% 1/4W F	
R103	1-249-437-11	CARBON 47K 5% 1/4W	
R104	1-249-417-11	CARBON 1K 5% 1/4W F	
R105	1-247-897-11	CARBON 560K 5% 1/4W	
R106	1-249-437-11	CARBON 47K 5% 1/4W	
R107	1-249-417-11	CARBON 1K 5% 1/4W F	
R108	1-249-441-11	CARBON 100K 5% 1/4W	
R109	1-247-815-91	CARBON 220 5% 1/4W	
R121	1-249-424-11	CARBON 3.9K 5% 1/4W F	
R122	1-247-887-00	CARBON 220K 5% 1/4W	
R126	1-249-417-11	CARBON 1K 5% 1/4W F	
R127	1-249-441-11	CARBON 100K 5% 1/4W	
R131	1-260-076-11	CARBON 10 5% 1/2W	
R132	1-260-076-11	CARBON 10 5% 1/2W	
R133	1-260-091-11	CARBON 220 5% 1/2W	
R134	1-260-091-11	CARBON 220 5% 1/2W	
R140	1-249-429-11	CARBON 10K 5% 1/4W	
R141	1-249-437-11	CARBON 47K 5% 1/4W	
R142	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description			Remarks
R147	1-216-457-00	METAL OXIDE	1.2K	5%	2W F (V3900)
R147	1-216-458-11	METAL OXIDE	1.8K	5%	2W F (V5900)
R151	1-249-417-11	CARBON	1K	5%	1/4W F
R152	1-249-417-11	CARBON	1K	5%	1/4W F
R153	1-249-437-11	CARBON	47K	5%	1/4W
R154	1-249-417-11	CARBON	1K	5%	1/4W F
R155	1-247-897-11	CARBON	560K	5%	1/4W
R156	1-249-437-11	CARBON	47K	5%	1/4W
R157	1-249-417-11	CARBON	1K	5%	1/4W F
R158	1-249-441-11	CARBON	100K	5%	1/4W
R159	1-247-815-91	CARBON	220	5%	1/4W
R171	1-249-424-11	CARBON	3.9K	5%	1/4W F
R172	1-247-887-00	CARBON	220K	5%	1/4W
R176	1-249-417-11	CARBON	1K	5%	1/4W F
R177	1-249-441-11	CARBON	100K	5%	1/4W
R181	1-260-076-11	CARBON	10	5%	1/2W
R182	1-260-076-11	CARBON	10	5%	1/2W
R183	1-260-091-11	CARBON	220	5%	1/2W
R184	1-260-091-11	CARBON	220	5%	1/2W
R191	1-249-425-11	CARBON	4.7K	5%	1/4W F (V5900)
R192	1-249-441-11	CARBON	100K	5%	1/4W (V5900)
R193	1-249-421-11	CARBON	2.2K	5%	1/4W F (V5900)
R194	1-249-437-11	CARBON	47K	5%	1/4W (V5900)
R195	1-249-437-11	CARBON	47K	5%	1/4W (V5900)
R201	1-249-429-11	CARBON	10K	5%	1/4W
R202	1-247-863-91	CARBON	22K	5%	1/4W
R203	1-249-441-11	CARBON	100K	5%	1/4W
R205	1-247-863-91	CARBON	22K	5%	1/4W
R206	1-249-421-11	CARBON	2.2K	5%	1/4W F
R207	1-249-431-11	CARBON	15K	5%	1/4W
R209	1-249-441-11	CARBON	100K	5%	1/4W
R210	1-247-896-11	CARBON	510K	5%	1/4W
R211	1-247-891-00	CARBON	330K	5%	1/4W (V5900)
R212	1-247-826-00	CARBON	620	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W
R215	1-247-903-00	CARBON	1M	5%	1/4W
R216	1-249-429-11	CARBON	10K	5%	1/4W
R217	1-249-437-11	CARBON	47K	5%	1/4W
R222	1-249-425-11	CARBON	4.7K	5%	1/4W F
R226	1-249-421-11	CARBON	2.2K	5%	1/4W F
R227	1-249-441-11	CARBON	100K	5%	1/4W
R228	1-249-429-11	CARBON	10K	5%	1/4W
R231	1-249-437-11	CARBON	47K	5%	1/4W
R232	1-249-437-11	CARBON	47K	5%	1/4W
R234	1-247-886-11	CARBON	200K	5%	1/4W
R235	1-249-421-11	CARBON	2.2K	5%	1/4W F
R236	1-249-441-11	CARBON	100K	5%	1/4W
R253	1-249-441-11	CARBON	100K	5%	1/4W
R257	1-249-431-11	CARBON	15K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R259	1-249-441-11	CARBON	100K	5%	1/4W
R260	1-247-896-11	CARBON	510K	5%	1/4W
R261	1-247-891-00	CARBON	330K	5%	1/4W (V5900)
R262	1-247-826-00	CARBON	620	5%	1/4W
R263	1-249-429-11	CARBON	10K	5%	1/4W
R264	1-249-437-11	CARBON	47K	5%	1/4W
R265	1-247-903-00	CARBON	1M	5%	1/4W
R266	1-249-429-11	CARBON	10K	5%	1/4W
R267	1-249-437-11	CARBON	47K	5%	1/4W
R272	1-249-425-11	CARBON	4.7K	5%	1/4W F
R276	1-249-421-11	CARBON	2.2K	5%	1/4W F
R277	1-249-441-11	CARBON	100K	5%	1/4W
R278	1-249-429-11	CARBON	10K	5%	1/4W
R281	1-249-429-11	CARBON	10K	5%	1/4W
R282	1-249-429-11	CARBON	10K	5%	1/4W
R283	1-249-435-11	CARBON	33K	5%	1/4W
R284	1-247-791-91	CARBON	22	5%	1/4W
R285	1-249-441-11	CARBON	100K	5%	1/4W
R286	1-249-429-11	CARBON	10K	5%	1/4W
R287	1-249-427-11	CARBON	6.8K	5%	1/4W F
R288	1-249-438-11	CARBON	56K	5%	1/4W
R289	1-249-437-11	CARBON	47K	5%	1/4W
R291	1-247-863-91	CARBON	22K	5%	1/4W
R292	1-247-863-91	CARBON	22K	5%	1/4W
R293	1-249-421-11	CARBON	2.2K	5%	1/4W F
R294	1-249-441-11	CARBON	100K	5%	1/4W
R295	1-247-903-00	CARBON	1M	5%	1/4W
R301	1-249-413-11	CARBON	470	5%	1/4W F
R302	1-249-425-11	CARBON	4.7K	5%	1/4W F
R303	1-249-437-11	CARBON	47K	5%	1/4W
R304	1-249-437-11	CARBON	47K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R311	1-247-807-31	CARBON	100	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W
R316	1-249-429-11	CARBON	10K	5%	1/4W
R318	1-249-429-11	CARBON	10K	5%	1/4W
R319	1-249-429-11	CARBON	10K	5%	1/4W
R320	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-425-11	CARBON	4.7K	5%	1/4W F
R323	1-247-807-31	CARBON	100	5%	1/4W
R324	1-247-891-00	CARBON	330K	5%	1/4W
R325	1-249-431-11	CARBON	15K	5%	1/4W
R326	1-249-415-11	CARBON	680	5%	1/4W F
R330	1-247-807-31	CARBON	100	5%	1/4W
R331	1-247-807-31	CARBON	100	5%	1/4W
R339	1-247-807-31	CARBON	100	5%	1/4W
R340	1-247-807-31	CARBON	100	5%	1/4W
R341	1-247-807-31	CARBON	100	5%	1/4W
R344	1-247-807-31	CARBON	100	5%	1/4W
R345	1-247-807-31	CARBON	100	5%	1/4W
R346	1-247-807-31	CARBON	100	5%	1/4W
R349	1-247-807-31	CARBON	100	5%	1/4W
R350	1-247-807-31	CARBON	100	5%	1/4W
R351	1-247-807-31	CARBON	100	5%	1/4W
R352	1-247-807-31	CARBON	100	5%	1/4W
R353	1-247-807-31	CARBON	100	5%	1/4W
R354	1-247-807-31	CARBON	100	5%	1/4W
R355	1-247-807-31	CARBON	100	5%	1/4W
R359	1-247-807-31	CARBON	100	5%	1/4W
R360	1-247-807-31	CARBON	100	5%	1/4W

MAIN PANEL

Ref. No.	Part No.	Description			Remarks
R366	1-247-807-31	CARBON	100	5%	1/4W
R367	1-249-429-11	CARBON	10K	5%	1/4W
R368	1-247-843-11	CARBON	3.3K	5%	1/4W
R369	1-249-429-11	CARBON	10K	5%	1/4W
R382	1-249-435-11	CARBON	33K	5%	1/4W
R384	1-249-429-11	CARBON	10K	5%	1/4W
R395	1-247-807-31	CARBON	100	5%	1/4W
R396	1-249-435-11	CARBON	33K	5%	1/4W
R397	1-247-807-31	CARBON	100	5%	1/4W
R398	1-249-435-11	CARBON	33K	5%	1/4W
R417	1-249-441-11	CARBON	100K	5%	1/4W
R804	1-249-438-11	CARBON	56K	5%	1/4W (V5900)
R854	1-249-438-11	CARBON	56K	5%	1/4W (V5900)
R913	1-247-815-91	CARBON	220	5%	1/4W
R914	1-249-417-11	CARBON	1K	5%	1/4W F
R915	1-249-425-11	CARBON	4.7K	5%	1/4W F
R916	1-247-815-91	CARBON	220	5%	1/4W
R917	1-247-815-91	CARBON	220	5%	1/4W
R918	1-249-425-11	CARBON	4.7K	5%	1/4W F
R920	1-249-417-11	CARBON	1K	5%	1/4W F
R921	1-247-895-91	CARBON	470K	5%	1/4W
R951	1-249-425-11	CARBON	4.7K	5%	1/4W F
R952	1-249-425-11	CARBON	4.7K	5%	1/4W F
R955	1-249-429-11	CARBON	10K	5%	1/4W
R1501	1-249-435-11	CARBON	33K	5%	1/4W
R1502	1-249-417-11	CARBON	1K	5%	1/4W F
R1503	1-249-426-11	CARBON	5.6K	5%	1/4W
R1504	1-247-840-00	CARBON	2.4K	5%	1/4W
R1505	1-247-863-91	CARBON	22K	5%	1/4W
R1506	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1507	1-249-428-11	CARBON	8.2K	5%	1/4W F
R1521	1-247-852-11	CARBON	7.5K	5%	1/4W
R1522	1-249-422-11	CARBON	2.7K	5%	1/4W F
R1524	1-249-429-11	CARBON	10K	5%	1/4W
R1525	1-249-432-11	CARBON	18K	5%	1/4W
R1526	1-249-429-11	CARBON	10K	5%	1/4W
R1527	1-249-429-11	CARBON	10K	5%	1/4W
R1531	1-247-843-11	CARBON	3.3K	5%	1/4W
R1532	1-249-411-11	CARBON	330	5%	1/4W
R1533	1-249-427-11	CARBON	6.8K	5%	1/4W F
R1534	1-249-429-11	CARBON	10K	5%	1/4W
R1535	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1536	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1541	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1542	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1543	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1544	1-249-417-11	CARBON	1K	5%	1/4W F
R1545	1-249-437-11	CARBON	47K	5%	1/4W
R1546	1-249-437-11	CARBON	47K	5%	1/4W
R1547	1-249-437-11	CARBON	47K	5%	1/4W
R1548	1-249-437-11	CARBON	47K	5%	1/4W
R1551	1-247-863-91	CARBON	22K	5%	1/4W
R1552	1-249-417-11	CARBON	1K	5%	1/4W F
R1553	1-249-426-11	CARBON	5.6K	5%	1/4W
R1554	1-247-840-00	CARBON	2.4K	5%	1/4W
R1555	1-247-863-91	CARBON	22K	5%	1/4W
R1556	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1557	1-249-428-11	CARBON	8.2K	5%	1/4W F

Ref. No.	Part No.	Description			Remarks
		< VARIABLE RESISTOR >			
RV1501	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV1551	1-238-598-11	RES, ADJ, CARBON 2.2K			
		< RELAY >			
RY141	1-515-920-11	RELAY (24V)			
		< TERMINAL >			
TM131	1-537-801-11	TERMINAL BOARD			
TM132	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (V3900)			
		< VIBRATOR >			
X301	1-760-489-11	VIBRATOR, CERAMIC 5MHz			
X302	1-567-098-41	VIBRATOR, CRYSTAL 32.768KHz			
**********					
*	A-4407-930-A	PANEL BOARD, COMPLETE (V5900)			
		**********			
*	A-4407-959-A	PANEL BOARD, COMPLETE (V3900)			
		**********			
*	4-949-935-81	CUSHION (FL)			
*	4-978-168-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C601	1-126-967-11	ELECT	47uF	20%	50V
C602	1-162-306-11	CERAMIC	0.01uF	20%	16V
C603	1-126-963-11	ELECT	4.7uF	20%	50V
C604	1-126-960-11	ELECT	1uF	20%	50V
C606	1-126-960-11	ELECT	1uF	20%	50V
C608	1-126-382-11	ELECT	100uF	20%	6.3V
C610	1-162-306-11	CERAMIC	0.01uF	20%	16V
C611	1-162-306-11	CERAMIC	0.01uF	20%	16V
C621	1-126-957-11	ELECT	0.22uF	20%	50V
C622	1-162-306-11	CERAMIC	0.01uF	20%	16V
C623	1-126-957-11	ELECT	0.22uF	20%	50V
C624	1-136-159-00	FILM	0.033uF	5%	50V
C625	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C626	1-126-957-11	ELECT	0.22uF	20%	50V
C632	1-126-957-11	ELECT	0.22uF	20%	50V
C641	1-162-286-21	CERAMIC	220PF	10%	50V
C642	1-162-286-21	CERAMIC	220PF	10%	50V
C643	1-162-286-21	CERAMIC	220PF	10%	50V
C644	1-162-286-21	CERAMIC	220PF	10%	50V
C645	1-162-286-21	CERAMIC	220PF	10%	50V
C646	1-162-286-21	CERAMIC	220PF	10%	50V
C647	1-162-286-21	CERAMIC	220PF	10%	50V
C648	1-162-286-21	CERAMIC	220PF	10%	50V
C649	1-162-286-21	CERAMIC	220PF	10%	50V
C650	1-162-286-21	CERAMIC	220PF	10%	50V
C651	1-162-286-21	CERAMIC	220PF	10%	50V
C652	1-162-286-21	CERAMIC	220PF	10%	50V
C653	1-162-286-21	CERAMIC	220PF	10%	50V
C654	1-162-286-21	CERAMIC	220PF	10%	50V
C655	1-162-286-21	CERAMIC	220PF	10%	50V
C696	1-164-159-21	CERAMIC	0.1uF		50V
C697	1-162-294-31	CERAMIC	0.001uF	10%	50V
C698	1-136-165-00	FILM	0.1uF	5%	50V

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
* CN601	1-568-836-11	SOCKET, CONNECTOR 17P	
* CN602	1-568-947-11	PIN, CONNECTOR 9P	
* CN603	1-568-944-11	PIN, CONNECTOR 6P	
* CN604	1-568-946-11	PIN, CONNECTOR 8P	
		< DIODE >	
D601	8-719-991-33	DIODE 1SS133T-77	
D602	8-719-991-33	DIODE 1SS133T-77	
D606	8-719-991-33	DIODE 1SS133T-77	
D607	8-719-991-33	DIODE 1SS133T-77	
D611	8-719-058-03	DIODE SEL5423E(TUNER/BAND)	
D612	8-719-058-03	DIODE SEL5423E(TUNER/BAND)	
D613	8-719-058-04	DIODE SEL5223S(ENTER/NEXT)	
D614	8-719-058-04	DIODE SEL5223S(GROOVE)	
D615	8-719-058-04	DIODE SEL5223S(SUPER WOOFER)(V5900)	
D616	8-719-058-04	DIODE SEL5223S(EFEECT)	
D617	8-719-058-04	DIODE SEL5223S(ENTER)	
D618	8-719-058-04	DIODE SEL5223S(FILE 1)	
D619	8-719-058-04	DIODE SEL5223S(FILE 2)	
D620	8-719-058-04	DIODE SEL5223S(FILE 3)	
D621	8-719-058-04	DIODE SEL5223S(FILE 4)	
D622	8-719-058-04	DIODE SEL5223S(FILE 5)	
D623	8-719-058-04	DIODE SEL5223S(P FILE)	
D624	8-719-058-04	DIODE SEL5223S(MENU 2)	
D625	8-719-058-04	DIODE SEL5223S(MENU 1)	
D627	8-719-058-04	DIODE SEL5223S(KEY CONTROL)	
		< FERRITE BEAD >	
FB601	1-412-473-21	INDUCTOR 0UH	
		< FILTER >	
FL601	1-517-619-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-526-33	IC TMP87CH74F-6658	
IC602	8-749-014-66	IC NJL56H400A	
		< COIL >	
L601	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q601	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-118-00	TRANSISTOR 2SB1116-L	
Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q606	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q607	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q608	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q609	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q610	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q611	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q614	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q617	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q618	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q619	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q620	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q621	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< RESISTOR >	
R601	1-249-425-11	CARBON 4.7K 5% 1/4W F (V5900)	
R602	1-249-427-11	CARBON 6.8K 5% 1/4W F (V5900)	
R603	1-247-903-00	CARBON 1M 5% 1/4W	
R608	1-249-429-11	CARBON 10K 5% 1/4W	
R609	1-247-843-11	CARBON 3.3K 5% 1/4W	
R610	1-247-843-11	CARBON 3.3K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R612	1-249-429-11	CARBON 10K 5% 1/4W	
R613	1-249-401-11	CARBON 47 5% 1/4W F	
R614	1-249-429-11	CARBON 10K 5% 1/4W	
R615	1-249-429-11	CARBON 10K 5% 1/4W	
R616	1-249-429-11	CARBON 10K 5% 1/4W	
R617	1-249-429-11	CARBON 10K 5% 1/4W	
R621	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R622	1-249-437-11	CARBON 47K 5% 1/4W	
R623	1-247-895-91	CARBON 470K 5% 1/4W	
R624	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R625	1-249-437-11	CARBON 47K 5% 1/4W	
R626	1-247-895-91	CARBON 470K 5% 1/4W	
R633	1-247-897-11	CARBON 560K 5% 1/4W	
R634	1-247-897-11	CARBON 560K 5% 1/4W	
R636	1-249-435-11	CARBON 33K 5% 1/4W	
R637	1-247-895-91	CARBON 470K 5% 1/4W	
R641	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R642	1-249-402-11	CARBON 56 5% 1/4W F	
R643	1-249-403-11	CARBON 68 5% 1/4W F	
R644	1-247-807-31	CARBON 100 5% 1/4W	
R645	1-249-406-11	CARBON 120 5% 1/4W F	
R646	1-249-407-11	CARBON 150 5% 1/4W F	
R647	1-247-815-91	CARBON 220 5% 1/4W	
R648	1-249-410-11	CARBON 270 5% 1/4W F	
R649	1-249-412-11	CARBON 390 5% 1/4W F	
R650	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R651	1-249-402-11	CARBON 56 5% 1/4W F	
R652	1-249-403-11	CARBON 68 5% 1/4W F	
R653	1-247-807-31	CARBON 100 5% 1/4W	
R654	1-249-406-11	CARBON 120 5% 1/4W F	
R655	1-249-407-11	CARBON 150 5% 1/4W F	
R656	1-247-815-91	CARBON 220 5% 1/4W	
R657	1-249-410-11	CARBON 270 5% 1/4W F	
R658	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R659	1-249-402-11	CARBON 56 5% 1/4W F	
R660	1-249-403-11	CARBON 68 5% 1/4W F	
R661	1-247-807-31	CARBON 100 5% 1/4W	
R662	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R663	1-249-402-11	CARBON 56 5% 1/4W F	
R664	1-249-403-11	CARBON 68 5% 1/4W F	
R665	1-247-807-31	CARBON 100 5% 1/4W	
R666	1-249-406-11	CARBON 120 5% 1/4W F	
R667	1-249-407-11	CARBON 150 5% 1/4W F	
R668	1-247-815-91	CARBON 220 5% 1/4W	
R669	1-249-410-11	CARBON 270 5% 1/4W F	
R670	1-249-412-11	CARBON 390 5% 1/4W F	
R671	1-249-414-11	CARBON 560 5% 1/4W F	
R672	1-249-415-11	CARBON 680 5% 1/4W F	

PANEL | TABLE SENSOR | TC-A SW | TC-B SW

Ref. No.	Part No.	Description			Remarks
R673	1-249-417-11	CARBON	1K	5%	1/4W F
R674	1-249-419-11	CARBON	1.5K	5%	1/4W F
R675	1-249-421-11	CARBON	2.2K	5%	1/4W F
R676	1-247-843-11	CARBON	3.3K	5%	1/4W
R677	1-249-426-11	CARBON	5.6K	5%	1/4W
R681	1-249-429-11	CARBON	10K	5%	1/4W
R682	1-249-421-11	CARBON	2.2K	5%	1/4W F
R683	1-247-887-00	CARBON	220K	5%	1/4W
R684	1-249-421-11	CARBON	2.2K	5%	1/4W F
R685	1-247-815-91	CARBON	220	5%	1/4W
R686	1-247-807-31	CARBON	100	5%	1/4W
R687	1-247-807-31	CARBON	100	5%	1/4W
R688	1-247-807-31	CARBON	100	5%	1/4W
R689	1-247-807-31	CARBON	100	5%	1/4W
R690	1-247-807-31	CARBON	100	5%	1/4W (V5900)
R691	1-247-807-31	CARBON	100	5%	1/4W
R692	1-247-807-31	CARBON	100	5%	1/4W
R693	1-247-807-31	CARBON	100	5%	1/4W
R694	1-247-807-31	CARBON	100	5%	1/4W
R695	1-247-807-31	CARBON	100	5%	1/4W
R696	1-247-807-31	CARBON	100	5%	1/4W
R697	1-247-807-31	CARBON	100	5%	1/4W
R698	1-247-807-31	CARBON	100	5%	1/4W
R699	1-247-807-31	CARBON	100	5%	1/4W
R700	1-247-807-31	CARBON	100	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)			
S602	1-554-303-21	SWITCH, TACTILE (TUNER MEMORY)			
S603	1-554-303-21	SWITCH, TACTILE (TUNING MODE)			
S604	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)			
S605	1-554-303-21	SWITCH, TACTILE (TUNING +)			
S606	1-554-303-21	SWITCH, TACTILE (TUNING -)			
S607	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)			
S608	1-554-303-21	SWITCH, TACTILE (FUNCTION)			
S609	1-554-303-21	SWITCH, TACTILE (GROOVE)			
S610	1-554-303-21	SWITCH, TACTILE (GEQ UP)			
S611	1-554-303-21	SWITCH, TACTILE (GEQ RIGHT)			
S612	1-554-303-21	SWITCH, TACTILE (GEQ LEFT)			
S613	1-554-303-21	SWITCH, TACTILE (GEQ DOWN)			
S614	1-554-303-21	SWITCH, TACTILE (SUPER WOOFER)			
S615	1-554-303-21	SWITCH, TACTILE (SUPER W MODE)(V5900)			
S616	1-554-303-21	SWITCH, TACTILE (GEQ CONTROL)			
S617	1-554-303-21	SWITCH, TACTILE (ENTER)			
S618	1-554-303-21	SWITCH, TACTILE (EFFECT)			
S619	1-554-303-21	SWITCH, TACTILE (SPECTRUM ANALYZER)			
S620	1-554-303-21	SWITCH, TACTILE (DISPLAY/DEMO)			
S621	1-554-303-21	SWITCH, TACTILE (POWER)			
S622	1-554-303-21	SWITCH, TACTILE (TIMER/CLOCK SET)			
S623	1-554-303-21	SWITCH, TACTILE (REC)			
S624	1-554-303-21	SWITCH, TACTILE (DAILY 1)			
S625	1-554-303-21	SWITCH, TACTILE (DAILY 2)			
S626	1-554-303-21	SWITCH, TACTILE (SLEEP)			
S628	1-554-303-21	SWITCH, TACTILE (WAVE)			
S629	1-554-303-21	SWITCH, TACTILE (KARAOKE PON/MPX)			
S630	1-554-303-21	SWITCH, TACTILE (P FILE MEMORY)			
S631	1-554-303-21	SWITCH, TACTILE (SHARP)			
S632	1-554-303-21	SWITCH, TACTILE (FLAT)			
S633	1-554-303-21	SWITCH, TACTILE (VOLUME)			
S701	1-473-392-11	ENCODER, ROTARY			
		< VIBRATOR >			
X601	1-579-125-11	VIBRATOR, CERAMIC 8MHz			
**********					
*	1-659-058-13	TABLE SENSOR BOARD			
		**********			
		< IC >			
IC202	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391			
		< RESISTOR >			
R207	1-249-416-11	CARBON	820	5%	1/4W F
**********					
*	1-664-012-11	TC-A SW BOARD			
		**********			
		< CONNECTOR >			
CN612	1-506-486-11	PIN, CONNECTOR 7P			
		< DIODE >			
D631	8-719-057-10	DIODE LNJ301MPUJAB (FWD)			
D632	8-719-057-10	DIODE LNJ301MPUJAB (REV)			
		< RESISTOR >			
R705	1-249-406-11	CARBON	120	5%	1/4W F
R706	1-249-407-11	CARBON	150	5%	1/4W F
R707	1-247-815-91	CARBON	220	5%	1/4W
R708	1-249-410-11	CARBON	270	5%	1/4W F
R709	1-249-412-11	CARBON	390	5%	1/4W F
R710	1-249-414-11	CARBON	560	5%	1/4W F
R711	1-247-807-31	CARBON	100	5%	1/4W
R714	1-247-807-31	CARBON	100	5%	1/4W
		< SWITCH >			
S641	1-554-303-21	SWITCH, TACTILE (FWD)			
S642	1-554-303-21	SWITCH, TACTILE (REV)			
S643	1-554-303-21	SWITCH, TACTILE (STOP)			
S644	1-554-303-21	SWITCH, TACTILE (REW)			
S645	1-554-303-21	SWITCH, TACTILE (FF)			
S646	1-554-303-21	SWITCH, TACTILE (DOLBY NR)			
S647	1-554-303-21	SWITCH, TACTILE (DIRECTION)			
**********					
*	1-664-013-11	TC-B SW BOARD			
		**********			
		< DIODE >			
D635	8-719-057-10	DIODE LNJ301MPUJAB (REV)			
D636	8-719-057-10	DIODE LNJ301MPUJAB (FWD)			
D637	8-719-058-17	DIODE LNG401NPYJA (PAUSE)			
D638	8-719-057-09	DIODE LNJ801LPDJA (REC)			

Ref. No.	Part No.	Description				Remarks
		< RESISTOR >				
R715	1-249-414-11	CARBON	560	5%	1/4W	F
R716	1-249-415-11	CARBON	680	5%	1/4W	F
R717	1-249-417-11	CARBON	1K	5%	1/4W	F
R718	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R719	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R720	1-247-843-11	CARBON	3.3K	5%	1/4W	
R721	1-249-426-11	CARBON	5.6K	5%	1/4W	
R722	1-249-430-11	CARBON	12K	5%	1/4W	
R724	1-247-807-31	CARBON	100	5%	1/4W	
R725	1-247-807-31	CARBON	100	5%	1/4W	
R727	1-247-807-31	CARBON	100	5%	1/4W	
R728	1-247-807-31	CARBON	100	5%	1/4W	
		< SWITCH >				
S651	1-554-303-21	SWITCH, TACTILE (FWD)				
S652	1-554-303-21	SWITCH, TACTILE (REV)				
S653	1-554-303-21	SWITCH, TACTILE (FF)				
S654	1-554-303-21	SWITCH, TACTILE (REW)				
S655	1-554-303-21	SWITCH, TACTILE (STOP)				
S656	1-554-303-21	SWITCH, TACTILE (PAUSE)				
S657	1-554-303-21	SWITCH, TACTILE (REC)				
S658	1-554-303-21	SWITCH, TACTILE (H SPEED DUB)				
S659	1-554-303-21	SWITCH, TACTILE (CD SYNC)				
**********						
*	1-668-169-11	TRANS BOARD				
		**********				
	1-533-399-11	HOLDER, FUSE				
		< CONNECTOR >				
* CN901	1-564-522-11	PLUG, CONNECTOR 7P				
* CN902	1-564-518-11	PLUG, CONNECTOR 3P				
CN903	1-774-108-11	PIN, CONNECTOR (PC BOARD)				
		< FUSE >				
⚠F901	1-532-464-31	FUSE TIME LAG 2.5A				
⚠F902	1-532-505-31	FUSE TIME LAG 5A				
		< RESISTOR >				
⚠R901	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R902	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R903	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
⚠R904	1-219-119-81	FUSIBLE	0.1	5%	1/4W	F
		< SWITCH >				
⚠S901	1-762-753-11	SWITCH, VOLTAGE SELECTION				
**********						
*	A-4407-923-A	VIDEO BOARD, COMPLETE				
		**********				
		< CAPACITOR >				
C101	1-163-038-91	CERAMIC CHIP	0.1uF		25V	
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C103	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C104	1-163-241-11	CERAMIC CHIP	39PF	5%	50V	
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V	

Ref. No.	Part No.	Description			Remarks
C106	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C107	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C108	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C109	1-126-246-11	ELECT CHIP	220uF	20%	4V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-163-091-00	CERAMIC CHIP	8PF		50V
C123	1-163-091-00	CERAMIC CHIP	8PF		50V
C124	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C128	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C129	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C130	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C151	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C152	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C153	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C154	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C155	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C156	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C157	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C158	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C159	1-126-246-11	ELECT CHIP	220uF	20%	4V
C181	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C201	1-126-209-11	ELECT CHIP	100uF	20%	4V
C202	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C203	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C204	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C205	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C206	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C207	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C208	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C209	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C210	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C211	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C212	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C213	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C251	1-124-779-00	ELECT CHIP	10uF	20%	16V
C252	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C271	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C272	1-124-779-00	ELECT CHIP	10uF	20%	16V
C273	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C274	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C275	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C276	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C301	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C302	1-124-779-00	ELECT CHIP	10uF	20%	16V
C303	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C304	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C305	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C306	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C401	1-124-779-00	ELECT CHIP	10uF	20%	16V
C403	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C404	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C405	1-163-038-91	CERAMIC CHIP	0.1uF		25V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

VIDEO

Ref. No.	Part No.	Description			Remarks
C409	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C411	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C451	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C452	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C453	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C454	1-124-779-00	ELECT CHIP	10uF	20%	16V
C455	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C457	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C458	1-163-257-11	CERAMIC CHIP	180PF	5%	50V
C460	1-163-257-11	CERAMIC CHIP	180PF	5%	50V
C461	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C462	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C463	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C464	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C465	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C466	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C468	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C469	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C470	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C471	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C501	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C503	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C504	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C505	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C511	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C701	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C702	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C703	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C704	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C705	1-124-779-00	ELECT CHIP	10uF	20%	16V
C706	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C751	1-124-779-00	ELECT CHIP	10uF	20%	16V
C752	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C771	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C772	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C801	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C802	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C803	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C804	1-126-209-11	ELECT CHIP	100uF	20%	4V
C805	1-126-204-11	ELECT CHIP	47uF	20%	16V
C806	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C807	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C885	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C901	1-124-779-00	ELECT CHIP	10uF	20%	16V
C902	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C904	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C908	1-163-038-91	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-779-416-11	CONNECTOR,FFC(LIF(NON-ZIF))13P			
CN102	1-766-942-11	CONNECTOR, FFC/FPC 29P			
CN103	1-774-863-11	PIN, CONNECTOR (PC BOARD) 8P			
CN104	1-774-731-21	PIN, CONNECTOR (PC BOARD) 5P			
		< TRIMMER >			
CT401	1-141-539-11	CAP, ADJ 10PF			
		< GROUND >			
* EPT883	4-870-539-00	PLATE, GROUND			

Ref. No.	Part No.	Description			Remarks
		< FERRITE BEAD >			
FB101	1-500-445-21	FERRITE	0UH		
FB102	1-543-961-11	FERRITE	0UH		
FB103	1-543-961-11	FERRITE	0UH		
FB104	1-543-961-11	FERRITE	0UH		
FB105	1-543-961-11	FERRITE	0UH		
FB106	1-216-295-91	SHORT	0		
FB181	1-216-295-91	SHORT	0		
FB271	1-500-445-21	FERRITE	0UH		
FB451	1-500-445-21	FERRITE	0UH		
FB452	1-500-445-21	FERRITE	0UH		
FB453	1-500-445-21	FERRITE	0UH		
FB454	1-216-295-91	SHORT	0		
FB455	1-216-295-91	SHORT	0		
FB458	1-500-445-21	FERRITE	0UH		
FB501	1-500-445-21	FERRITE	0UH		
FB502	1-500-445-21	FERRITE	0UH		
FB503	1-414-551-11	FERRITE	0UH		
		< IC >			
IC101	8-759-362-47	IC CXD8567AM			
IC102	8-759-701-39	IC NJM3404AM			
IC103	8-759-701-39	IC NJM3404AM			
IC181	8-759-269-14	IC SN74HCT08ANS-E20			
IC201	8-752-386-73	IC CXD1856Q			
IC251	8-759-368-97	IC M5M44260CTP-7S			
IC271	8-759-479-44	IC BU6257AFV-E2			
IC272	8-759-180-84	IC TC7W74F			
IC301	8-752-384-09	IC CXD1854Q			
IC401	8-752-380-71	IC CXD1913Q			
IC402	8-759-269-92	IC SN74HCU04ANS-E20			
IC451	8-759-262-00	IC MC14576CF			
IC452	8-759-262-00	IC MC14576CF			
IC501	8-759-926-49	IC SN74HC245ANS			
IC701	8-759-484-85	IC HD6433032SK15F			
IC751	8-759-462-71	IC HY6264ALJ-70-TR			
IC771	8-759-927-72	IC TL1591CP			
IC772	8-759-035-93	IC SC7S32F			
IC801	8-759-460-72	IC BA033FP-E2			
IC901	8-759-487-76	IC uPD780016YGF-020-3BA			
		< COIL >			
L101	1-410-377-31	INDUCTOR CHIP	4.7uH		
L251	1-410-381-11	INDUCTOR CHIP	10uH		
L461	1-412-006-31	INDUCTOR CHIP	10uH		
L462	1-216-295-91	SHORT	0		
L463	1-412-006-31	INDUCTOR CHIP	10uH		
		< RESISTOR >			
R101	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R102	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R103	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R104	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R105	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R106	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R107	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R108	1-216-081-00	METAL CHIP	22K	5%	1/10W
R109	1-216-073-00	METAL CHIP	10K	5%	1/10W
R110	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R111	1-216-081-00	METAL CHIP	22K	5%	1/10W
R121	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R122	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R123	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R124	1-216-025-91	RES,CHIP	100	5%	1/10W
R125	1-216-025-91	RES,CHIP	100	5%	1/10W
R126	1-216-037-00	METAL CHIP	330	5%	1/10W
R127	1-216-025-91	RES,CHIP	100	5%	1/10W
R128	1-216-025-91	RES,CHIP	100	5%	1/10W
R129	1-216-025-91	RES,CHIP	100	5%	1/10W
R130	1-216-041-00	METAL CHIP	470	5%	1/10W
R151	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R152	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
R153	1-216-679-11	METAL CHIP	15K	0.5%	1/10W
R154	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R155	1-216-675-11	METAL CHIP	10K	0.5%	1/10W
R156	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R157	1-216-693-11	METAL CHIP	56K	0.5%	1/10W
R158	1-216-081-00	METAL CHIP	22K	5%	1/10W
R159	1-216-073-00	METAL CHIP	10K	5%	1/10W
R160	1-216-081-00	METAL CHIP	22K	5%	1/10W
R161	1-216-081-00	METAL CHIP	22K	5%	1/10W
R162	1-216-025-91	RES,CHIP	100	5%	1/10W
R201	1-216-025-91	RES,CHIP	100	5%	1/10W
R203	1-216-295-91	SHORT	0		
R204	1-216-025-91	RES,CHIP	100	5%	1/10W
R206	1-216-295-91	SHORT	0		
R207	1-216-073-00	METAL CHIP	10K	5%	1/10W
R208	1-216-073-00	METAL CHIP	10K	5%	1/10W
R209	1-216-073-00	METAL CHIP	10K	5%	1/10W
R210	1-216-073-00	METAL CHIP	10K	5%	1/10W
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W
R212	1-216-073-00	METAL CHIP	10K	5%	1/10W
R213	1-216-073-00	METAL CHIP	10K	5%	1/10W
R214	1-216-073-00	METAL CHIP	10K	5%	1/10W
R215	1-216-073-00	METAL CHIP	10K	5%	1/10W
R216	1-216-073-00	METAL CHIP	10K	5%	1/10W
R217	1-216-073-00	METAL CHIP	10K	5%	1/10W
R218	1-216-073-00	METAL CHIP	10K	5%	1/10W
R219	1-216-073-00	METAL CHIP	10K	5%	1/10W
R220	1-216-073-00	METAL CHIP	10K	5%	1/10W
R221	1-216-073-00	METAL CHIP	10K	5%	1/10W
R222	1-216-073-00	METAL CHIP	10K	5%	1/10W
R223	1-216-073-00	METAL CHIP	10K	5%	1/10W
R224	1-216-073-00	METAL CHIP	10K	5%	1/10W
R225	1-216-073-00	METAL CHIP	10K	5%	1/10W
R226	1-216-073-00	METAL CHIP	10K	5%	1/10W
R227	1-216-073-00	METAL CHIP	10K	5%	1/10W
R228	1-216-073-00	METAL CHIP	10K	5%	1/10W
R229	1-216-073-00	METAL CHIP	10K	5%	1/10W
R230	1-216-073-00	METAL CHIP	10K	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-073-00	METAL CHIP	10K	5%	1/10W
R233	1-216-073-00	METAL CHIP	10K	5%	1/10W
R234	1-216-073-00	METAL CHIP	10K	5%	1/10W
R235	1-216-073-00	METAL CHIP	10K	5%	1/10W
R236	1-216-073-00	METAL CHIP	10K	5%	1/10W
R237	1-216-073-00	METAL CHIP	10K	5%	1/10W
R238	1-216-073-00	METAL CHIP	10K	5%	1/10W
R239	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R240	1-216-073-00	METAL CHIP	10K	5%	1/10W
R241	1-216-073-00	METAL CHIP	10K	5%	1/10W
R242	1-216-073-00	METAL CHIP	10K	5%	1/10W
R243	1-216-295-91	SHORT	0		
R271	1-216-025-91	RES,CHIP	100	5%	1/10W
R272	1-216-025-91	RES,CHIP	100	5%	1/10W
R273	1-216-041-00	METAL CHIP	470	5%	1/10W
R274	1-216-049-91	RES,CHIP	1K	5%	1/10W
R302	1-216-025-91	RES,CHIP	100	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R311	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R313	1-216-025-91	RES,CHIP	100	5%	1/10W
R401	1-500-445-21	FERRITE	0UH		
R402	1-216-025-91	RES,CHIP	100	5%	1/10W
R403	1-216-025-91	RES,CHIP	100	5%	1/10W
R404	1-216-121-91	RES,CHIP	1M	5%	1/10W
R405	1-216-047-91	RES,CHIP	820	5%	1/10W
R406	1-216-025-91	RES,CHIP	100	5%	1/10W
R407	1-216-025-91	RES,CHIP	100	5%	1/10W
R408	1-216-037-00	METAL CHIP	330	5%	1/10W
R409	1-216-037-00	METAL CHIP	330	5%	1/10W
R410	1-216-037-00	METAL CHIP	330	5%	1/10W
R451	1-216-687-11	METAL CHIP	33K	0.5%	1/10W
R452	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R453	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R454	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R455	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R456	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R457	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R458	1-216-295-91	SHORT	0		
R459	1-216-295-91	SHORT	0		
R460	1-216-295-91	SHORT	0		
R464	1-216-097-91	RES,CHIP	100K	5%	1/10W
R465	1-216-097-91	RES,CHIP	100K	5%	1/10W
R466	1-216-097-91	RES,CHIP	100K	5%	1/10W
R467	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R468	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R469	1-216-624-11	METAL CHIP	75	0.5%	1/10W
R470	1-216-049-91	RES,CHIP	1K	5%	1/10W
R471	1-216-049-91	RES,CHIP	1K	5%	1/10W
R501	1-216-009-00	METAL CHIP	22	5%	1/10W
R502	1-216-009-00	METAL CHIP	22	5%	1/10W
R503	1-216-025-91	RES,CHIP	100	5%	1/10W
R504	1-216-025-91	RES,CHIP	100	5%	1/10W
R505	1-216-295-91	SHORT	0		
R506	1-216-025-91	RES,CHIP	100	5%	1/10W
R507	1-216-037-00	METAL CHIP	330	5%	1/10W
R508	1-216-037-00	METAL CHIP	330	5%	1/10W
R509	1-216-037-00	METAL CHIP	330	5%	1/10W
R510	1-216-041-00	METAL CHIP	470	5%	1/10W
R701	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R702	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
R706	1-216-073-00	METAL CHIP	10K	5%	1/10W
R707	1-216-073-00	METAL CHIP	10K	5%	1/10W
R708	1-216-073-00	METAL CHIP	10K	5%	1/10W
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W
R711	1-216-295-91	SHORT	0		
R712	1-216-025-91	RES,CHIP	100	5%	1/10W
R713	1-216-025-91	RES,CHIP	100	5%	1/10W
R714	1-216-025-91	RES,CHIP	100	5%	1/10W
R715	1-216-025-91	RES,CHIP	100	5%	1/10W
R716	1-216-025-91	RES,CHIP	100	5%	1/10W
R717	1-216-025-91	RES,CHIP	100	5%	1/10W
R718	1-216-025-91	RES,CHIP	100	5%	1/10W
R719	1-216-025-91	RES,CHIP	100	5%	1/10W
R720	1-216-025-91	RES,CHIP	100	5%	1/10W
R721	1-216-025-91	RES,CHIP	100	5%	1/10W
R722	1-216-081-00	METAL CHIP	22K	5%	1/10W
R723	1-216-025-91	RES,CHIP	100	5%	1/10W
R724	1-216-073-00	METAL CHIP	10K	5%	1/10W
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W
R726	1-216-073-00	METAL CHIP	10K	5%	1/10W
R727	1-216-073-00	METAL CHIP	10K	5%	1/10W
R728	1-216-073-00	METAL CHIP	10K	5%	1/10W
R902	1-216-295-91	SHORT	0		
R903	1-216-025-91	RES,CHIP	100	5%	1/10W
R904	1-216-073-00	METAL CHIP	10K	5%	1/10W
R905	1-216-073-00	METAL CHIP	10K	5%	1/10W
R906	1-216-073-00	METAL CHIP	10K	5%	1/10W
R907	1-216-085-00	METAL CHIP	33K	5%	1/10W
R908	1-216-085-00	METAL CHIP	33K	5%	1/10W
R909	1-216-085-00	METAL CHIP	33K	5%	1/10W
R910	1-216-085-00	METAL CHIP	33K	5%	1/10W
R911	1-216-073-00	METAL CHIP	10K	5%	1/10W
R912	1-216-073-00	METAL CHIP	10K	5%	1/10W
R913	1-216-073-00	METAL CHIP	10K	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-073-00	METAL CHIP	10K	5%	1/10W
R916	1-216-073-00	METAL CHIP	10K	5%	1/10W
R917	1-216-073-00	METAL CHIP	10K	5%	1/10W
R919	1-216-073-00	METAL CHIP	10K	5%	1/10W
R920	1-216-073-00	METAL CHIP	10K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W

< CONPOSITION CIRCUIT BLOCK >

RB301	1-239-407-11	RES, NETWORK	(1608)
RB302	1-239-407-11	RES, NETWORK	(1608)
RB303	1-239-407-11	RES, NETWORK	(1608)
RB304	1-239-407-11	RES, NETWORK	(1608)

< VIBRATOR >

X101	1-767-518-11	VIBRATOR, CRYSTAL 33MHz
X201	1-767-055-11	VIBRATOR, CERAMIC 45MHz
X202	1-767-361-11	VIBRATOR, CERAMIC 28.6MHz
X401	1-767-519-11	VIBRATOR, CRYSTAL 27MHz
X701	1-767-211-11	VIBRATOR, CERAMIC 10MHz
X901	1-767-144-21	VIBRATOR, CERAMIC 5MHz

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Ref. No.	Part No.	Description			Remarks
*	1-665-406-11	VIDEO OUT BOARD			
		**********			
		< CAPACITOR >			
C9001	1-126-916-11	ELECT	1000uF	20%	6.3V
C9002	1-126-916-11	ELECT	1000uF	20%	6.3V
C9003	1-126-925-11	ELECT	470uF	20%	10V
C9007	1-162-281-31	CERAMIC	91PF	10%	50V
		< CONNECTOR >			
* CN9001	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
		< ENCAPSULATED >			
FIL900	1-236-728-11	ENCAPSULATED COMPONENT			
		< JACK >			
J9001	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
J9002	1-778-773-11	TERMINAL, S (S VIDEO OUT)			
		< COIL >			
L9001	1-414-142-11	INDUCTOR	1uH		
		< RESISTOR >			
R9001	1-249-429-11	CARBON	10K	5%	1/4W
R9002	1-249-429-11	CARBON	10K	5%	1/4W
R9003	1-249-429-11	CARBON	10K	5%	1/4W
R9004	1-249-429-11	CARBON	10K	5%	1/4W
R9005	1-247-863-91	CARBON	22K	5%	1/4W
		< SWITCH >			
S9001	1-571-589-11	SWITCH, SLIDE (SYSTEM SELECT)			
*	1-666-126-11	VIDEO POWER BOARD			
		**********			
		< CAPACITOR >			
C9001	1-126-964-11	ELECT	10uF	20%	50V
C9002	1-126-933-11	ELECT	100uF	20%	16V
C9003	1-126-919-11	ELECT	6800uF	20%	6.3V
C9004	1-126-964-11	ELECT	10uF	20%	50V
C9005	1-126-933-11	ELECT	100uF	20%	16V
C9006	1-126-935-11	ELECT	470uF	20%	6.3V
C9008	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN9001	1-564-506-11	PLUG, CONNECTOR 3P			
* CN9002	1-564-507-11	PLUG, CONNECTOR 4P			
		< IC >			
IC9001	8-759-231-53	IC TA7805S			
IC9002	8-759-231-53	IC TA7805S			
		< TRANSISTOR >			
Q9001	8-729-141-83	TRANSISTOR 2SB1094-LK			
Q9002	8-729-900-36	TRANSISTOR DTC124ES			
Q9003	8-729-141-83	TRANSISTOR 2SB1094-LK			
Q9004	8-729-900-36	TRANSISTOR DTC124ES			

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R9001	1-249-421-11	CARBON	2.2K	5%	1/4W F
R9002	1-249-413-11	CARBON	470	5%	1/4W F
R9003	1-249-421-11	CARBON	2.2K	5%	1/4W F
R9004	1-249-413-11	CARBON	470	5%	1/4W F
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		MISCELLANEOUS			
		**********			
4	1-233-545-11	ENCAPSULATED COMPONENT			
5	1-769-974-11	WIRE (FLAT TYPE) (13 CORE)			
8	1-698-792-11	FAN, DC (V5900)			
58	1-773-161-11	WIRE (FLAT TYPE) (21 CORE)			
59	1-769-949-11	WIRE (FLAT TYPE) (11 CORE)			
121	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)			
152	1-782-562-11	WIRE (FLAT TYPE) (13 CORE)			
157	1-782-563-11	WIRE (FLAT TYPE) (29 CORE)			
⚠159	1-569-007-11	ADAPTOR, CONVERSION 2P (IA)			
⚠159	1-569-008-21	ADAPTOR, CONVERSION 2P (SP,MY)			
⚠160	1-558-943-41	CORD, POWER (IA)			
⚠160	1-575-651-21	CORD, POWER (SP,MY)			
357	1-452-925-11	MAGNET ASSY			
⚠401	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP			
402	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)			
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)			
HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)			
M1	X-3371-223-1	MOTOR ASSY (CAPSTAN)			
M2	A-2004-410-A	MOTOR ASSY (TRIGGER)			
M201	A-4660-977-A	MOTOR ASSY (TABLE)			
M101	X-4917-523-4	MOTOR ASSY (SPINDLE)			
M102	X-4917-504-1	MOTOR ASSY (SLED)			
⚠T901	1-431-635-11	TRANSFORMER, POWER (V3900)			
⚠T901	1-431-637-11	TRANSFORMER, POWER (V5900)			
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Ref. No.	Part No.	Description	Remarks
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-475-165-21	COMMANDER, STANDARD	(RM-SV808S)(V3900)
	1-475-373-21	COMMANDER,STANDARD	(RM-SV4800S)(V5900)
	1-501-374-11	ANTENNA, LOOP	
	1-501-659-41	ANTENNA (FM)	
	1-769-329-21	CORD, CONNECTION	
	3-864-158-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-864-158-21	MANUAL, INSTRUCTION (FRENCH/SPANISH)	(SP,MY)
	3-864-158-31	MANUAL, INSTRUCTION (CHINESE)	
	4-983-536-01	COVER, BATTERY (for RM-SV808S/SV4800S)	
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		**********	
		HARDWARE LIST	
		**********	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-872-09	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-862-09	SCREW +BVTT 2.6X6 (S)	
#6	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#8	7-621-775-10	SCREW +B 2.6X4	
#9	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#10	7-623-921-01	RING, RETAINING, CAPSTAN	
#11	7-621-775-00	SCREW +B 2.6X3	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-626-301-31	SPRING PIN 2X10	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-922-939-11

Sony Corporation
Home A&V Products Company

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